A Lecture

ON

THE ADMINISTRATION OF CHLOROFORM TO MAN AND TO THE HIGHER ANIMALS.

Delivered in the Physiological Laboratory of the University of London on Oct. 13th, 1903.

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GENTLEMEN,—On previous occasions, when it has fallen to my lot to replace one of my colleagues in this lecture-room, I have invited you to inspect the work that happened to be in progress in the laboratory, and to the best of my ability I have explained the origin, the state, and the purpose of what you have seen. I shall again employ my lecturer's hour in this way, and lay before you as fully as possible in the time the state of the case concerning the experimental study of anæsthetics, which, as some of you know, has been a principal subject of study in this laboratory during the past year. And whereas last summer I dealt at length with purely scientific aspects of the problem, I shall to-day confine myself to the practical side, which is the direct logical consequence of the scientific side—that is to say, that I shall deal with the administration of chloroform to man and to the higher animals.

Some preface is, however, necessary. Although these lectures are addressed to students of second degree possessing already such primary information as may be acquired in the regular medical curriculum, it has happened that non-medical persons, unacquainted with the first rudiments of medical study, have obtained permission to be present. To anyone who has attended the lectures and practice of the laboratory during the past year it will, I hope, be matter of surprise that two intelligent young ladies should have come here for many days and have neither seen nor learned anything to give them pause from rushing into print with a horrified condemnation of physiology and of physiologists. If the two young ladies under whose name the publication entitled "Shambles of Science" has appeared, came simply to get "copy" the case is easily understood; but I am unwilling to believe this; and, indeed, the case looks to me much more like that of a pair of very ill-advised busybodies supporting each other through a trying ordeal for the sake of what they imagined to be an errand of mercy. I am sorry they came. I should have told them or any other non-professional women that they had better not come to such lectures, for they would run the risk of being misled and pained by experiments where no suffering to living animals was caused. Indeed, one would look very much askance at the young woman who should be able to look on while an animal was, as she imagined, undergoing torture.

For the naked details of even a properly conducted vivisection, ignorantly considered, as must be the case if they are considered at all by an unprofessional person, appear revolting—so do the details of a surgical operation or of the slaughter of an animal for food, or of the proceedings in the dissecting-room and the post-mortem room. The minute and graphic account of such details by ignorant women is from every point of view mischievous and deplorable, and I very much regret that these two unfortunate ladies should have obtained the opportunity to torment themselves and their readers by their conscientious misrepresentations. Physiologists, when vivisection is necessary, do not take either pleasure or pain in its naked details, and they systematically take due precautions to fully anæsthetise animals required for experiment. The incredible motives sometimes attributed to physiologists by well-meaning people and the unlimited adjectives and substantives by which they are held up to public reprobation can only be left to the antidote of their own excess. It is really labour lost to be constantly pleading "not guilty" to this, that, or the other quite outrageous statement; we can only wonder that well-meaning people can so quietly harbour such infamous thoughts.

Nor have we failed to question our own conscience. We well know that physiologists are subject to the common laws governing the human mind and that habit must tend to engender inattention and that inattention would be cruelty. We are on our guard against our own inattention, but knowing that we are human we do not resent as indignantly as might be expected of us the reminder to be on our guard that is contained in the denunciations of our critics. We also know that there is evil in the appearance of evil, that things right and proper in themselves but offensive of appearance ought not to be exposed. And if exposure by even competent authority must offend and injure the imaginations of ordinary men and women, how much more injury and offence to the public mind will be committed by incompetent and self-deluded women who have entered what is to their minds nothing more than a chamber of horrors, where in reality the "quivering flesh" and "palpitating heart" and "tortured nerves" are more often than not only the living parts of dead animals, and where in any case an animal, even if alive, has been absolutely deprived of sensation. When one attempts to realise what kind of images must hold possession of an ignorant, prejudiced, and sensitive person—man or woman—who has seen without understanding, he ceases to wonder at bad language, yet what can he hope to say that shall reach the mind of the deluded fanatics whose pity has been fanned to hatred by agitators. And can it be expected of us that we should say anything at all to persons who can employ sensational literature to poison the wells of human sympathy.

In this laboratory—and no doubt in others—our very first concern is to administer anæsthetics properly when anæsthetics are required. And I make the deliberate statement that animals in this laboratory are anæsthetised with as great certainty and accuracy as are the patients in any hospital in the United Kingdom. Can it be necessary to tell you that we do not juggle with bottles of "colourless and odourless" liquid as imagined and stated by the two ladies who have visited these "shambles"? You shall see for yourselves what takes place outside the lecture-room whenever it is necessary to anæsthetise an animal. I have chosen cats for my demonstration, since the demeanour of these animals is most familiar to us.

Cat No. 1 was anæsthetised three hours ago by the inhalation of chloroform and air at 2 per cent. and has during the last three hours been maintained in profound anæsthesia in a mixture of between 1 and 1·5 per cent. I now pass it round the class, so that you may all assure yourselves of its state, and when it returns to the lecture table it will be left to recover. Its recovery will take place in not less than half an hour nor more than three-quarters of an hour, and will, I believe, be complete within an hour. By complete recovery I mean that state in which the cat will drink milk and purr, and a saucer of milk is therefore placed by the cat as its normal test. You will have understood from this illustration that complete anæsthesia can be, and regularly is, established as long as necessary for the purpose of experiment; and you will hardly need to be told that the anæsthesia can be kept up by a continuous administration, or strengthened if it should at any moment appear to be weakening.

On Cat No. 2 you will see how anæsthesia is induced, and Cat No. 3, which has been left upon the operation table for another purpose, will serve to let you see how the anæsthesia has been maintained throughout an operation. Cat No. 2 has been borrowed for the purpose of this lecture on the understanding that it shall be returned intact. It is to be fully anæsthetised by a mixture of chloroform and air at 2 per cent. according to the regular custom of the laboratory. The induction of complete anæsthesia will take not less than five minutes nor more than ten minutes, and the recovery will be complete in half an hour. I shall also show you how we verify that the mixture is at or about 2 per cent., and in so doing I shall have demonstrated to you how we ascertain the percentage of any unknown mixture of chloroform and air.

Cat No. 3, now upon the operation board, is dead, having just served for an experiment in which we measured the amounts of chloroform inspired and expired (1) during a normal induction of anæsthesia by chloroform at a low percentage and (2) during a normal production of death by chloroform at a high percentage. Throughout this experiment we have observed and recorded the respiration and the blood pressure, the percentage of chloroform in the inspired and expired air, and the total volume of air breathed per minute.

The results of the experiment are contained in the record now on the cylinder (Figs. 1 and 1A) and in the numbers

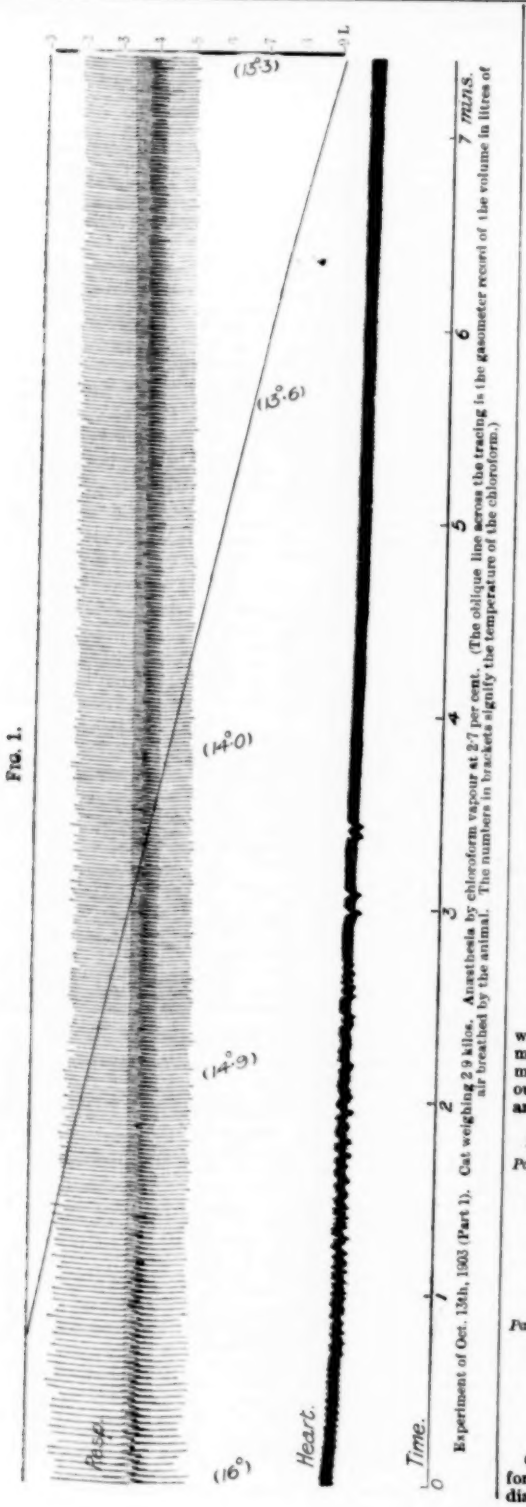


FIG. 1.

Experiment of Oct. 13th, 1903 (Part 1). Cat weighing 2·9 kilos. Anæsthesia by chloroform vapour at 2·7 per cent. (The oblique line across the tracing is the gasometer record of the volume in litres of air breathed by the animal. The numbers in brackets signify the temperature of the chloroform.)

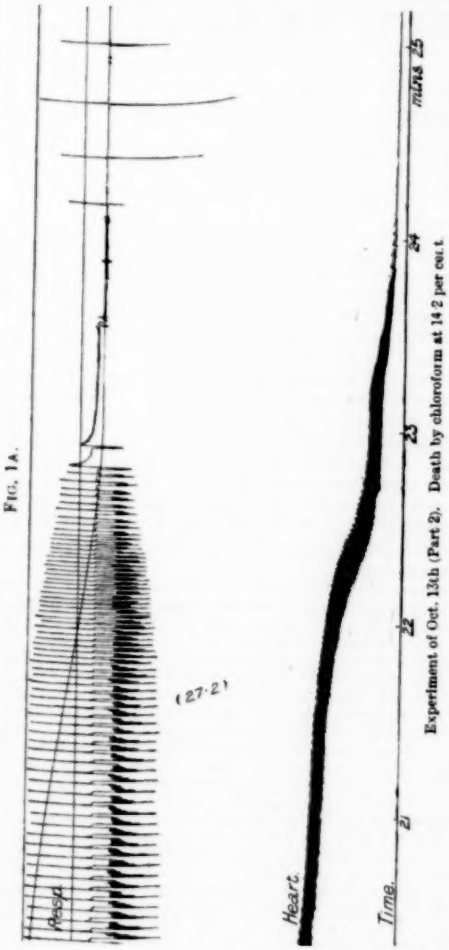


FIG. 1A.

Experiment of Oct. 13th (Part 2). Death by chloroform at 14·2 per cent.

written on the blackboard (*vide infra*). The remainder of my lecture will be occupied by an explanation of the exact manner in which these several observations have been carried out, and by a very few concluding remarks concerning the anæsthesia of the human subject.

Experiment made on Oct. 13th on a Cat weighing 2·9 kilos.

Part I.—Induction of complete anæsthesia by nine litres of chloroform and air at 2·7 per cent. $CHCl_3$ in 7 minutes 40 seconds. The frequency of respiration was 70 per minute with an average depth of 16 cubic centimetres per respiration.

Inspired	...	2·7 per cent.,		i.e., 243 cubic centimetres of $CHCl_3$ vapour in 9 litres of air.		
Expired	...	2·1	,, ,,	189 cubic centimetres.		
Retained	...	0·6	,, ,,	54	,, ,,	(or 0·27 gramme).

Part II.—Death by two litres of chloroform and air at 14·2 per cent. in three minutes.

Inspired	...	14·2 per cent.,		i.e., 284 cubic centimetres of $CHCl_3$ vapour in 2 litres of air.		
Expired	...	7·9	,, ,,	158 cubic centimetres.		
Retained	...	6·3	,, ,,	126	,, ,,	(or 0·63 gramme).

Of course, such an estimate of the total quantity of chloroform absorbed during a given period would be more immediately satisfactory if that total quantity could be directly

measured. But I have ground for concluding that the result obtained by calculation from the percentage of given samples and the total volume of air used, does actually represent a close approximation to such total quantity. In a series of trials made last year of the delivery by an apparatus recently proposed for clinical anæsthesia I measured (1) the total volume of air drawn over a weighed amount of chloroform; (2) the loss of weight of the chloroform; and (3) the percentage of chloroform in the issuing air by densimetry. The percentage, as given by the densimeter sample, is very nearly that afforded by the quotient of total air divided by total chloroform:—

1 Total of air in litres.	2 Loss of $CHCl_3$.	Percentage calculated from (1) and (2).	3 Percentage by densimetry.
25·2	2·38 (476 c.c.)	1·89	1·90
12·6	1·56 (312 c.c.)	2·48	2·50
8·4	1·29 (258 c.c.)	3·07	3·10

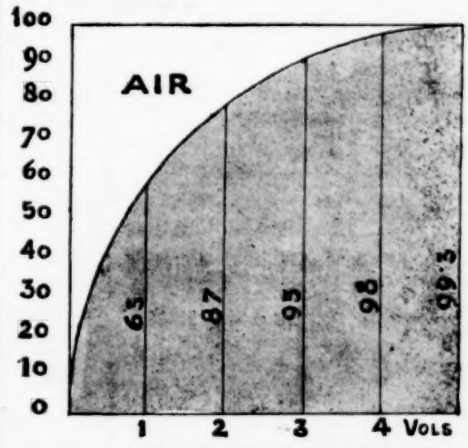
All three cats have gone through the proceeding you witnessed in the case of the borrowed cat—it is our regular laboratory procedure for cats, dogs, rabbits, rats, mice, pigeons, and frogs—and the differences of susceptibility to chloroform exhibited by these various animals are so small that we are justified in translating to the human subject the knowledge we have acquired at their expense. The animal is placed under a glass bell jar through which chloroform and air of known percentage are pumped. The pump is one originally devised by Professor R. Dubois of Lyons for the anæsthetisation of the human subject and has proved very valuable as a laboratory instrument. The only objection to its use is, as far as I can ascertain, its price—£20; but as a matter of fact as a laboratory instrument it is commercially economical. We have never lost an animal by chloroform since it has been in use, and the amount of chloroform employed in the laboratory has been comparatively small; the certainty and safety with which anæsthesia has been induced have very materially lightened the preparations for an experiment; it has enabled us to keep animals in complete anæsthesia for as long as 12 hours.

At each stroke of the pump four and a half litres of air are delivered at the outlet and an equal amount is drawn in at the inlet. The inlet is by an open bottle into which each stroke automatically delivers 0·3 cubic centimetre (five minims) of liquid chloroform, equivalent to 90 cubic centimetres of chloroform vapour, the whole of which is drawn into the pump at one stroke and delivered at the next stroke. Thus at one, two, three, or four strokes per minute the delivery is 4·5, 9, 13·5, and 18 litres per minute of a 2 per cent. mixture of chloroform and air, and whether the pump is worked quickly or slowly (within reasonable limits) the percentage remains at this figure, which is the maximum value afforded in the automatic working of the apparatus (but can be lowered to 1·6 and 1·2 per cent. by turning a cam or raised to between 3 and 4 per cent. if demanded).

The nominal delivery of this (or of any other apparatus) is readily tested by the densimetric method.[1] A 250 cubic centimetre bulb, previously counterpoised on a balance, is placed upon the delivery tube, filled with the mixture, closed, and replaced upon the balance. It is found in the case now before us that an addition of 22 milligrammes is required to the counterpoise—i.e., that the percentage of chloroform in the sample is 2·2. The data upon which this method of estimation is based are as follows. Each cubic centimetre of chloroform vapour is four milligrammes heavier than one cubic centimetre of air, so that 2·5 cubic centimetres—i.e., 1 per cent. in the 250 cubic centimetres flask—are ten milligrammes heavier. Ten milligrammes signify, therefore, 1 per cent. and 22 milligrammes 2·2 per cent.

It will be worth while to realise the way in which the percentage of chloroform in a reservoir rises to that of a chloroform plus air mixture delivered through it. Fig. 2 will help you to do so. You may see from it that a reservoir through which once, twice, thrice its own volume of a mixture has been slowly passed, contains a more dilute mixture at 0·63, 0·87, 0·95 of the percentage of the original mixture, and that when five times the volume has passed, the percentage in the reservoir is practically equal to that of the supply. For a bell jar of 30 litres supplied by a chloroform mixture at 2 per cent. at a rate of 30 litres per minute (seven strokes per minute of the Dubois's pump are more than sufficient for this) the percentage in the jar at the end of the one, two, three, four, and five minutes will be 1·26, 1·74, 1·90, 1·99, and 1·99. And as regards the densimeter bulb by which we just sampled the percentage of supply, a single stroke driving ten times its volume of gas through the bulb is obviously more than sufficient to give a full strength sample of mixture in the bulb.

FIG. 2.



To illustrate the rate at which the air of a receiver is replaced by chloroform mixture of any given strength. When the receiver has been traversed by once, twice, three times, &c., its volume of mixture, the contents = 63 mixture + 37 air; 87 mixture + 13 air, &c. The mixture is practically at its full strength when the receiver has been traversed by five times its volume.

Let us turn our attention to the results obtained on Cat No. 3. It was first anæsthetised under the bell jar; a cannula was then placed in the trachea connected by a tube with a Woulfe's flask containing chloroform so that the inspired air was charged with an unknown amount of chloroform vapour by which the anæsthesia was maintained. This is the ordinary laboratory method of keeping up anæsthesia but it is a dangerous method and one that is not used in this laboratory except for the actual study of chloroform; we prefer ether for ordinary use. In the present case, the purpose of the experiment being to get at the percentage and amount of chloroform administered, a densimeter bulb is placed on the inspiration tube and the total amount of air inspired is measured by a gasometer. In the present case the total amount of air inspired was nine litres (in seven minutes 40 seconds) and the percentage of chloroform vapour in that air was 2·7. The total volume of chloroform vapour taken into the lungs was therefore, 243 cubic centimetres, or rather more than one gramme of fluid chloroform.

Was all this chloroform vapour retained? Probably not, or rather evidently not, since the expired air of the animal smelt strongly of chloroform. How much then was the amount of chloroform rejected in the expired air? To ascertain this was a rather more troublesome matter; a Chauveau's valve (Fig. 3) connected with two densimeters, one on the inspiratory and the other on the expiratory side, was ultimately found to answer the purpose extremely well. The flaps of the valve act perfectly with inspirations and expirations ranging from 10 to 1000 cubic centimetres and the "dead space" of the apparatus is as small as possible, so that the column of air moved to and fro with respiration is not much greater than that of the large air passages. We have to prevent any condensation of water vapour from taking place in the expiration bulb. To this end it is placed in a metal chamber kept at between 40° and 50° C. by an incandescent lamp and to keep things equal the inspiration bulb is placed by its side in the warm chamber. A slight increase of weight (1·3 milligrammes per 1 per cent.) in the expiration bulb by reason of the CO_2 expired is either allowed for or estimated separately. Its

[1] Proceedings of the Physiological Society, 1903.

accurate determination might be of importance in low percentage estimates; but in high percentage estimates like the present the error due to this source may be disregarded. Thus 5 per cent. of chloroform is signified by 50 milligrammes and 4 per cent. of CO_2 is signified by 5·2 milligrammes; for ordinary purposes then it is well to

FIG. 3.

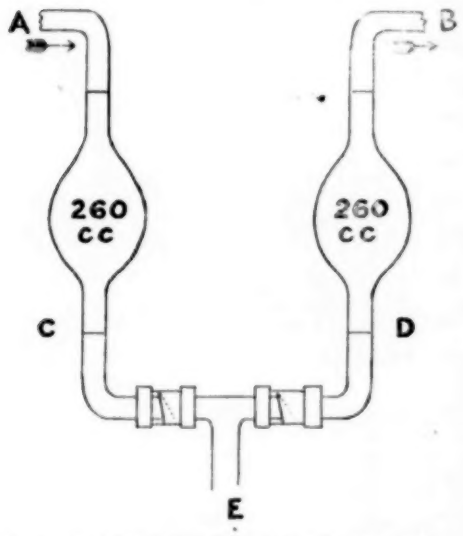


Diagram to show the arrangement of apparatus for the estimation of chloroform in the inspired and expired air. Tube A is attached to a chloroform flask, tube B to a gasometer. Tube E of the Chauveau valve is connected with the trachea. Two densimeters are attached to its inspiratory end C and to its expiratory end D. (The warm jacket enclosing the densimeters is not shown.)

subtract five milligrammes from the weight of the expiration bulb as the average value of the CO_2 weight in expired air.[2]

We are now in a position to draw up a more complete balance-sheet showing the pulmonary absorption of chloroform during a given period, the excess of income over output representing what has been retained in the body during that period. In the case before us the percentage of chloroform in the expiration densimeter was 2·1, or 189 cubic centimetres of chloroform vapour were rejected in the nine litres of expired air. So that we have:—

Chloroform inspired	...	243 cubic centimetres.	
,, rejected	...	189 ,, ,,	
,, retained	...	54 ,, ,,	(= 0·27 gramme).

That has been the story of the induction of profound normal anæsthesia by chloroform vapour at a rather high, but not in itself a dangerous, percentage. The amount of chloroform rejected was greater (and of that retained was smaller) than I have seen in other similar experiments. I attribute this to the character of the breathing which was rapid and shallow—above 60 per minute.

Turn now to the second part of the experiment, when the cat was deliberately sacrificed by the inhalation of chloroform at a high percentage, all arrangements being made as before to record the movements of respiration and the blood pressure, the percentage of chloroform in the inspired and in the expired air, and the total volume of air breathed. Death occurred, as in the great majority of such cases, by failure of respiration, followed by failure of the heart. The percentage of chloroform as given by the inspiration densimeter was 14·2, by the expiration densimeter 7·9 (corrected for 2 per cent. of CO_2 determined volumetrically). The total volume of air breathed was two litres in three minutes, when respiration ceased. We have in this normal death by chloroform at a high percentage the following result.

Chloroform inspired	...	284 cubic centimetres.	
,, rejected	...	158 ,, ,,	
,, retained	...	126 ,, ,,	(= 0·63 gramme).

Commentary is hardly necessary; the facts speak for themselves. In Part I. an animal was fully anæsthetised by chloroform absorbed at the rate of 27 milligrammes per minute. In Part II. the same animal was killed by chloroform absorbed at the rate of 210 milligrammes per minute.

For the sake of comparison with the results of to-day's experiment I have set out for your inspection the principal data of a similar experiment made two days ago on a dog.

Experiment made on Oct. 11th on a Dog weighing Seven Kilogrammes.

Part I.—Induction of complete anæsthesia by 8·5 litres of chloroform and air at 3·1 per cent. of $CHCl_3$ in four minutes 30 seconds.

Inspired	...	3·10 per cent.	.....	263·5 cubic centimetres.	
Expired	...	1·88 ,,	.....	158·1 ,, ,,	
Retained	...	1·24 ,,		105·4 ,, ,,	(= 0·527 gramme).

Part II.—Death by eight litres of chloroform and air at 13·2 per cent. $CHCl_3$ in three minutes.

Inspired	...	13·2 per cent.	.....	1066 cubic centimetres.	
Expired	...	6·66 ,,	.....	543 ,, ,,	
Retained	...	6·54 ,,		523 ,, ,,	(= 2·615 grammes).

One accident, and one only, has occurred in this laboratory since the procedure which you have just witnessed has been regularly adopted. It was not due to the procedure but to its absence. The accident was so strikingly instructive that I shall give you an exact account of how it occurred and of what we learned from it. The animal—a cat—had been fully anæsthetised and transferred to the operating table when the operator was called to some other more urgent matter. On his return he found the animal undergoing artificial respiration which failed to restore it. Death had taken place. The animal had shown signs of recovery from the anæsthetic and had been re-anæsthetised by "*a few drops of chloroform on a cloth*" which had caused sudden arrest of the heart and of respiration. The accident was obviously a case of early cardiac death of the kind well known to physiologists and dreaded by surgeons. I believe that it can only occur when a sudden wave of concentrated chloroform vapour reaches the lungs and pulmonary blood, and I adopted the following device to ascertain whether the conditions under which the accident had just taken place were compatible with the reason given.

An open glass tube was placed between the teeth of the dead animal and connected with a densimeter bulb and an

FIG. 4.

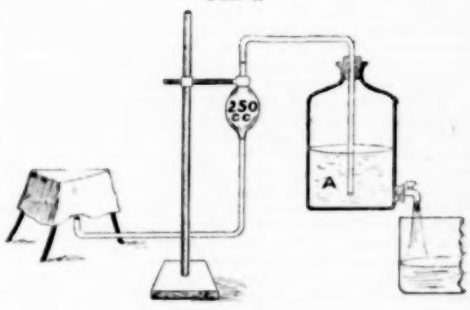


Diagram of the apparatus referred to in the text for the rapid estimation of chloroform percentage in air beneath a cloth or mask.

aspirator that drew two litres of air through the bulb in two minutes. A few drops of chloroform were poured on a cloth which was wrapped round the head of the animal as previously for the production of anæsthesia. The percentage of chloroform found in the air aspirated through the densimeter was found to be 11·2. A second trial with the cloth more loosely applied gave the percentage 2·5. A third experiment with the cloth held away from the head of the

[2] A respiratory quotient of 0·9 has been assumed in the calculation of the densimetric value of CO_2 in expired air.

animal gave the percentage 1·2. The tube was then removed from the animal and clamped under a tripod on which the cloth was placed. Chloroform was then put on the upper surface of the cloth drop by drop and the aspirator A was set going for two minutes so as to draw two litres of air *plus* chloroform vapour. The sketch (Fig. 4) will show you exactly how the cloth, the tube, the densimeter, and the aspirator were disposed. The distance between the cloth and the mouth of the tube was three inches, the temperature of the room was 18·5° C. (65·3° F.), and the barometer stood at 768 millimetres of mercury. The percentage by the densimeter was 0·8. In subsequent trials the percentage was 0·7, 1·0, 0·8 with the cloth loose over the tripod, and 1·9 with the cloth more closely wrapped round it. I now understand as I never understood before how it is that an "open method" involving the administration of "plenty of chloroform with plenty of air" is a relatively safe method. It is relatively safe because under the ordinary physical conditions of the method, with due skill and unflagging watchfulness on the part of the administrator, the amount of chloroform vapour in the mixture of chloroform and air offered to inspiration is as a rule between the desirable limits of 1 and 2 per cent. It must be obvious to you that this simple apparatus places in your hands the means of studying the kind of chloroform percentage offered to the inspiration of a patient by any of the various masks and other apparatus that are in use for the chloroformisation of the human subject.

The relative danger of a closely fitting mask, even when the chloroform is given drop by drop, cannot but be evident to you. The reason of the relative safety of the Edinburgh practice—plenty of chloroform with plenty of air—will be no less intelligible. Lawrie, the most convinced and persistent advocate of this method, gives "doses" of chloroform that are enormous, but he is careful that the amount he uses shall not reach the patient's lungs. There is no special virtue in any mask; one towel is not more dangerous than another, nor is there any good reason why it should be preferred to a piece of lint. That method is safest which best secures that the patient shall continuously inspire a mixture of chloroform and air with not less than 1 per cent. and not more than 2 per cent. of chloroform vapour in the mixture.

I have naturally and almost without noticing the transition passed to the last and most important head of my lecture—the application of our laboratory knowledge acquired on animals to clinical practice applied to ourselves. Not much time remains to me for all there is to say; perhaps I may be permitted to deal more fully with the many questions that come up for answer under this head on some future occasion.

The words "and the higher animals" have expressly formed part of the title of this lecture. Under "clinical practice" I include "veterinary practice." Personally I should be almost as willing to expend thought and money to insure the safe anæsthesia of a favourite animal that required operation as to insure that of an unknown man, woman, or child. Happily, however, there is here no antagonism of interests nor protection of commercial privileges at stake; here anything benefiting a dog or cat must also benefit man, and anything benefiting the man must also benefit his friends among the animals. Men have paid and are still paying a heavy price in return for the boon of anæsthesia conferred upon them 60 years ago by Wells, Morton, Soubeiran, Flourens, Simpson, and Snow. The annual returns of the Registrar-General exhibit the picture shown in Fig. 5 of the increasing price paid in human lives from 1863 to 1901. It is an unnecessary price, inasmuch as the chief reason of its payment consists in the ignorance of the most elementary principles of anæsthesia. Anæsthetists explicitly assert that they are not acquainted with chloroform in arithmetical terms, as 1, 2, 3, and 4 per cent., and that they judge of its power solely from its clinical signs and symptoms.

Experience is, no doubt, the great teacher. The empirical anæsthetist of to-day who has witnessed the clinical signs and symptoms presented by patients in danger of death, or actually put to death, under his method of administration is, no doubt, a less dangerous administrator than the instructed scientist quantitatively acquainted with the power and properties of anæsthetic agents. But the scientific man does not desire to trespass upon the domain of the practical anæsthetist; he only wishes to bring to the common melting pot his own contribution of experience in the belief that it will prove to be an important ingredient of the practical knowledge of future anæsthetists.

You may have heard about that worthy nurse who did not hold with "those new-fangled thermometers" but preferred to regulate the temperature of the bath by the colour of the baby's skin. She was probably a better nurse than some of her younger sisters—better acquainted with thermometers than with babies—not perfectly sure perhaps about Fahrenheit and Celsius—but she is certainly a still better nurse when she has learned to count on a bath-thermometer. Chloroform anæsthesia is of greater importance to us all, and even an experienced anæsthetist is a safer anæsthetist if he can count the chloroform he gives us, and if he is accustomed to think about chloroform in concrete numbers, instead of judging by symptoms only and recognising (or not) that a danger signal is in sight.

FIG. 5.

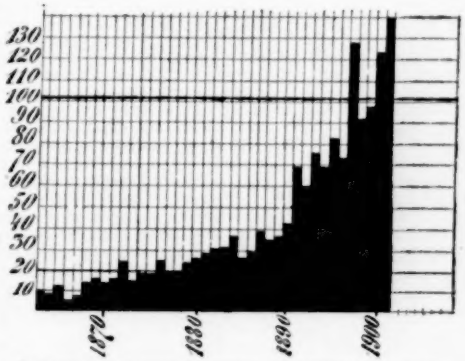


Diagram of the annual numbers of "deaths from anæsthetics" in England in the years 1863 to 1901 constructed from the returns of the Registrar-General.

To return for a moment to the death-rate diagram. The unsifted figures of such returns are not, I am well aware, unimpeachable scientific evidence of actual numbers of deaths directly caused by anæsthetics. The numbers may be too high or they may be too low, they may include cases not caused by anæsthetics but that have occurred from other causes during anæsthesia; or they may fail to include actual cases of death really caused by anæsthetics, but certified—and quite honestly certified—as caused by that disease for which the services of the surgeon and of the anæsthetist had been invoked. And this remark is applicable to continental as well as to English returns. I think that the returns are, however, sufficiently voluminous to be amenable to the "law of large numbers" and to justify us in regarding the actual figures, inclusive of their plus and minus errors, as fairly representative of the state of the case as regards the death-rate by anæsthetics in past years. The figures are at least arranged by unprejudiced machinery, and I cannot but regard as disingenuous the assertion that such figures are worthless and the demand for their detailed analysis. Detailed analysis is impossible and even if possible would be misleading, for if faults of commission might be detected, faults of omission would be beyond correction. It can only be in a few cases that analysis and criticism are possible. I quoted such cases belonging to the period 1896–7 in a presidential address to the Section of Anatomy and Physiology of the British Medical Association held at Montreal six years ago, and I will again quote from the year that has just elapsed two cases which, with full knowledge of the details of both cases, I characterise as unjustifiable accidents directly due to the maladministration of chloroform. The first case occurred in London and the second in Germany.

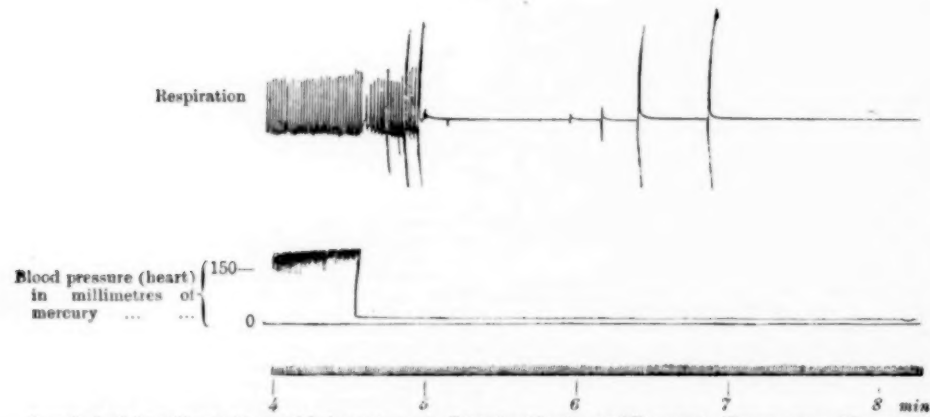
CASE 1.—A healthy, powerful man went to the out-patient department of a London hospital to have a piece of glass removed from his hand, was chloroformed by the "towel method" by the dresser in charge, and could not be brought round. The verdict returned at the coroner's inquest was "Death by misadventure."

CASE 2.—A young woman went into hospital to be

operated upon for appendicitis. After due preparation and the patient being in an otherwise healthy state, chloroform was administered by the Esmarch method. Within a few minutes her heart stopped. The statement made in the medical certificate was "Death by syncope."

Both of these most lamentable accidents, which occurred during the last year in the limited circle of my own cognisance (I was not present), were the direct result of chloroform vapour ignorantly administered. No regard was paid to the concentration of chloroform in the air inspired; it may have reached any percentage short of the saturation point of a solution of chloroform vapour in air at the then room temperature. Presumably a deep breath or two of such a mixture were taken, whether few drops or many of liquid chloroform had been dropped on the towel in the first case and on the Esmarch mask in the second, and the wave of chloroform to the pulmonary sheet of blood overpowered the heart directly, or at least placed it in that critical state where any, even the smallest, bulbar disturbance from any afferent channel is to be dreaded. They were early deaths by primary cardiac syncope during the period of induction of anæsthesia; their mechanism is illustrated by this tracing of the blood pressure and respiration of a cat that was being anæsthetised by chloroform at 5·75 per cent. (Fig. 6.) Sudden arrest of the heart, causing sudden fall of blood pressure, took place in coincidence with the slamming of a door. I expressly use the expression "in coincidence with" because I cannot be certain that the slammed door was really the cause of the sudden cardiac arrest and I have failed to reproduce the accident in subsequent trials.

FIG. 6.



An early death by sudden cardiac arrest (primary syncope). Cat under chloroform at 5·75 per cent. No recovery possible. The four gasps apparent on the respiratory record are the terminal anæmic convulsions characteristic of a cardiac death. In the human subject they may arouse hope, whereas in reality they are the last sign of life.

In conclusion, let me repeat a statement made five years ago to the Society of Anæsthetists. "The evidence in point shows that it is necessary, and within reasonable limits of error practicable, to secure dosage in the administration of chloroform and I should like at once to characterise and earmark that argument by the statement that successful chloroform anæsthesia requires the regular respiration of air in which the chloroform vapour is maintained between the limits of 1 and 2 per cent." Nothing has happened within the last few years that should lead me to modify this statement.

The anæsthetics' death-rate as given in the Registrar-General's returns has not diminished. Cases of death in which it has been possible to analyse and to consider details of procedure remain as unpardonable as ever. And I have shown you as clearly as was possible that animals in a physiological laboratory are as a matter of course anæsthetised by chloroform safely as well as effectively.

What is the cause of the greater danger to which men, women, and children are exposed? Is it fear acting upon a nervous system more highly organised than that of animals, or "idiosyncrasy," or "impure chloroform"? These are perhaps contributory causes, but as I know from the experience of the laboratory that 5 per cent. is "dangerous" and between 1 and 2 per cent. is sufficient, I do not think it proper to give importance to possible secondary influences until the principal condition of safety has been secured.

PS. (Nov. 7th).—By the intermediation of my friend Dr. P. M. Chapman and through the courtesy of the surgical staff of the Herefordshire General Hospital I have received an opportunity of applying to the human subject in the operating theatre the method of anæsthesia that the experience of the laboratory has shown to be so satisfactory in the case of animals. Dr. Chapman will no doubt publish his notes of the clinical features of the cases. I may be permitted to state now that the cases were five in number and unselected, that the induction was effected in from six to ten minutes, and that anæsthesia of required depth was maintained for the required periods without untoward symptoms. The nominal delivery of the pump throughout was 2 per cent. (except in the first case, where it was commenced at 1·2 per cent.), and after the period of induction the percentage actually inhaled was reduced by occasional removal of the face piece. The total duration of the five administrations was 100 minutes, the total amount of chloroform employed was 100 cubic centimetres (= 30 litres of chloroform vapour), the total volume of air delivered by the pump was 1400 litres (30 in 1400 is equivalent to 2·15 per 100). Densimetric determinations of the delivery taken before, during, and after administration came out between the limits of 1·6 and 2·4 per 100. The determinations were made in an ordinary balance with a half-litre bulb and weights made by dividing two-grain slips of metal into eight parts; each eighth part (= a quarter of a grain) was taken as indicating 0·8 per 100. If I should have occasion to repeat such determinations I should prepare weights = one-eighth of a grain to represent steps of 0·4 per 100. For finer determinations it would be preferable to employ a skilled assistant.

On Nov. 16th, by the courtesy of Dr. F. W. Hewitt, and under his responsibility, I anæsthetised four unselected cases at St. George's Hospital by the Dubois's pump. The induction at 2 per cent. was normal and uniform and was completed within the limits of five and ten minutes (except in the case of an infant when the period of induction was between two and three minutes). Anæsthesia of required depth and duration was maintained at 1·6 and 1·2 per cent., with occasional brief intermissions as judged desirable by Dr. Hewitt. The delivery of the apparatus as tested by densimetry immediately before use was as follows:—

Nominal percentage.	Observed percentage (averages of four trials).
2·0	1·975
1·6	1·600
1·2	1·188

ABSTRACT OF

An Address

ON

THE PRESENT STATE OF THE IRISH POOR-LAW MEDICAL SERVICE.

Delivered at St. Vincent's Hospital, Dublin, on Oct. 6th, 1903, at the Opening of the Medical Session,

BY R. F. TOBIN, F.R.C.S., M.R.C.P. IREL.,

EXAMINER IN SURGERY, ROYAL COLLEGE OF SURGEONS IN IRELAND; SURGEON TO ST. VINCENT'S HOSPITAL, DUBLIN.

[AFTER a few introductory remarks Mr. Tobin said :—]

Thinking of a special subject for this address the two that present themselves to me as being uppermost in our minds at present are the state of the weather and that of the Irish Poor-law medical service. Both are equally bad but as the weather is a more difficult and more of a medical subject I shall leave it for Dr. McHugh next year and consult with the lately qualified students as to whether they should or should not take dispensary appointments under the present conditions. This subject is not grateful to me. First, it is threadbare. Had I all the eloquence of the Irish Bar it would not be possible to say of it anything more or in a better way than has been said by others—notably by my colleague Mr. McArdle from this very desk five years ago. Secondly, I have to commend to you a line of action that is foreign to us alike as men belonging to a generous race and a generous profession. However, this matter is pressing. There is unanimity amongst us that something must be done to improve the position of Irish Poor-law medical officers and therefore I think that it is the duty of each one of us to bring the subject before the public on every possible occasion and to continue to hurl truisms and commonplace facts into the street till those in authority give active consideration to them. What is the case of the Poor-law medical officers? A price, they say, was put on our services which at the time it was fixed was certainly not too high. Since then the cost of education has doubled and our market value has doubled, yet we are refused any increase either of privileges or pay.

[After quoting from an article on the medical profession which appeared in the *Cornhill Magazine* of June, 1903, Mr. Tobin continued :—]

In this paragraph is to be found the explanation of the present discontent. A man after five or six years of arduous study and after seeing many fall upon the way completes his course. He takes employment in the Poor-law medical service and he find himself treated as regards pay and consideration as if he were a Bob Sawyer. The inadequacy of the pay of the dispensary medical officer has been set forth in various ways. For instance, it has been shown that in many districts if these medical officers were allowed merely the rate of car-hire given to other Government officials and no pay whatever they would be better off than they are now. To myself the condition of things was brought home very forcibly in this way.

[Mr. Tobin here quoted a case showing the superiority of the army medical service over the Irish Poor-law medical service even before the inauguration of the improved condition of the former. He went on :—]

Now, as regards the cause of the present quarrel—and indeed of all quarrels where the profession demands higher terms than the public are prepared to give—when we look closely into it we find that it is due to the fact that while we offer to the public certain high-class goods, not low in price but of excellent value, what they, the men in the street, want from us is a low class article that would be dear at any price. You who have been recently qualified or are about to be so have probably uppermost in your minds as regards your profession ideas such as the following. You find yourselves anxious to go on adding indefinitely to the knowledge you now possess, to put that knowledge at the service of the public for payment when you can, gratuitously when occasion demands, and whether for payment or no payment never to give anything but your best. But form what conception you may of your rôle in life you will find a large number of the public, a number daily growing larger, who have made up their minds as to what they will have of you and you will deny it to them at your peril. In the minds of such men the medical man seldom looms larger than one who prescribes a mixture, a pill, or a blister, to which armoury have of late been added Roentgen rays and tabloids. It has been so in the past; it is so to-day with the cultured as well as with the illiterate.

Let us take cases. We always study here from cases. Now if I ask you to look back through the last few centuries and to tell me what man stands out pre-eminently as a great block of sense I have no doubt most of you will answer Dr. Johnson. His wisdom is embodied in our household words. He stands great because he *was* great and because Boswell has preserved him for us in a living shape. It is a life one never tires of reading. Every first-year student should buy that book and, dividing it into parts, have it bound up with Birmingham's "Anatomy," Kirkes' "Physiology," and Tobin's "Synopsis of Surgery." For surely it is not by anatomy and physiology and surgery alone that a man grows wise—no, nor even by a study of Fraser's great work on the topography of the brain—but by keeping himself in touch, as far as he can, with the great men past and present in every branch of literature and of art. Well, anyhow, Johnson was a wise man except on the subject of medicine. Having had a "paralytic stroke" he writes to Mrs. Thrale as follows: "I suppose you may wish to know how my disease is treated by the physicians. They put a blister on my back and two from my ear to my throat, one on a side. The blister on the back has done little and those on the throat have not risen. I bullied and bounced (it sticks to our last sand) and compelled the apothecary to make his salve according to the Edinburgh dispensatory, that it might adhere better. I have now two on my own prescription. They also give me salts of hartshorn which I take with no great confidence. But I am satisfied that what can be done is done for me." Is not that true to life or rather to sickness? You see it is to the blisters as amended by himself, made according to the "Edinburgh dispensatory," that he pins his faith. These adhering he feels—oh! thrice blessed phrase—that "what can be done is done." That once said, whatever the result the physician walks out with his head in the air.

That is Case 1. Now for Case 2. Once upon a time a young fellow just married bought a practice in a manufacturing district in England where I was quartered. He gave for it £1000, the fortune he got with his wife—being at the rate of one year's purchase. He was probably a St. Vincent's man, for he knew his work well and was full of enthusiasm and the highest ideals. At the end of 15 months he moved away with his wife but without her fortune. Asking the people amongst whom he practised the cause of his failure I was told that he was a humbug and that he knew nothing. Why, it was said "he would sometimes take a quarter of an hour to examine you, whereas the man he bought the practice from could see his job the moment he looked in your face." To be looked in the face and to get a bottle were all they wanted from their medical attendant.

The third case is more up to date. It presented itself while I was sitting a few days ago in a railway carriage, in the shape of one of our leading citizens who occupied himself during the first part of a short journey in prescribing for people present and people not present. For instance, he told a lady who said she had a child at home with a sore-throat to give him a tabloid, which she could get at any druggist's, of five grains of phenacetin and to repeat the tabloid in three hours when she would find all the symptoms relieved. After this he read for a time his evening paper and struck by something in it he turned to me and said: "Now, doctor, how do you account for the high mortality of Dublin?" Seeing me trying to hide a smile in my book he added: "It is no laughing matter, my dear fellow."

Now, gentlemen, if the Irish poor are to be treated simply with blisters that will stick, or with mixtures after they have been looked in the face, or with tabloids after they have described the nature of their disease, we are, I think, all agreed that the pay of the dispensary medical officer is sufficient for the occasion. But is this, then, the practice of medicine? It is not the practice of medicine as it was generally known in Ireland till we became infected with ideas from across the water. We are continually being told how they manage things better in England and how our system of medical relief pauperises

the people. The facts are that unhappily a large number of our people *are* paupers or so poor that no decent man would expect a fee from them, but it was not the medical profession which made them so. Secondly, in no land does the medical profession stand higher or conduct its practice better than in Ireland. At a time when in England a medical practitioner had to take his way through the back door of his wealthy patients his fellows in Ireland were associating on terms of perfect equality with everyone in this land. Why is this? Simply because we have always treated, and the public have always encouraged us in treating, our rôle in life as a profession and not as a trade.

Now, what is the difference? Well, you will find one in the resolution which I took for granted just now was in the minds of each of our newly qualified men—viz., that whether for large fees or small fees or no fees at all he would never give anyone he prescribed for anything but his best. Now, this requires in most cases a full examination of your patient and a careful consideration of his case. There is a sum of money, it may be two guineas or one guinea or 5*s.*, which taking into account your position, your necessary expenditure, and other things, fairly represents what has been done. If you take less you are inclined to scamp your work. I speak not absolutely but with the relativeness which applies to all things human. Well, so working always at your best you establish a habit; there is but one class of article in your shop and if a poor person comes along you give him either that article or nothing at all. The well to-do public, at least the more enlightened of them, join with us in taking this view of the question. They see that they must suffer from any deterioration in our profession, that they are often benefited by the skill gained by those who practise amongst the poor, and this combined with less selfish motives makes them satisfied to pay fees not based on purely mercantile considerations. So there comes to be between the well-to-do, the poor, and the medical men a mutual helpfulness, the interchange of which constitutes the salt that saves us from putrefaction.

[Mr. Tobin here referred to counter prescribing as not necessarily objectionable and continued:—]

Now that motor-cars are about a better idea of things may become prevalent. When a man has spent three hours on his back looking up into the works of his car, taking it to pieces and putting it together again, and then walks sadly to the nearest railway station, the complexity of some machines, amongst which he may rank the human body, may dawn upon him, and with it may come an inkling that the human body cannot be properly attended to when out of order for a sum that a mechanic would refuse for almost any job. But as all have not motor-cars would it not be well if the profession were to formulate what it considers the province of a dispensary medical officer to be, and to hold up this definition before the public on every occasion? It is, however, no easy task to do so in a clear and simple way. In place of defining its limits it is easier to ask, whither do they not extend? What is it which does not influence our health? The air we breathe, the water and food we consume, the work we do, the sights we see, the games we play, everything which acts upon us comes within the scope of the medical practitioner. This is no vague generalisation but a hard practical fact. The cultured and well to-do are it is true, becoming educated in domestic hygiene, but it is not so with the poor. To limit the treatment of their ailments to a bottle of medicine is a mockery and a crime. The part therefore that the dispensary medical officer has to play is a very large one. He is many specialists in one. There is practically no limit to the good he can do if he is a man of sense, ability, and skill. It is his to guard against the occurrence of disease, to limit its spread, to help those attacked in their struggle with it, to raise the physique and to forward in every way the comfort and well-being of those committed to his care. This is no mean task and surely the man who is called upon to undertake it may put forward the three demands of the Irish Medical Association—viz., firstly, a competence (£300 a year) while he works; secondly, a moderate pension when he is no longer able to do so; and thirdly, a month's leave of absence every year in which to recuperate his health or to attend a post-graduate course so as to keep himself *au courant* with the advance of science.

At the outset of this address I remarked that the necessity to remedy the present condition of things is urgent. There is, however, another reason for pressing on with energy just now. It is that we have in office a Chief Secretary and an Under Secretary possessing, as we believe, the will and the ability to help us. Their records fill us with hope. How can we best lay our case before them? If only you, Mr. Chairman, could take them for a drive in a motor-car through the scenes of your early labours. It would be a pleasant tour, for it would be through many beautiful places, but it would also be a sad one, for at every turn there would be something speaking to thoughtful minds of present misery and neglected opportunities. The ruined cabins on the hillsides must awaken thoughts of the brave men born and reared in them and so of battles fought and battles yet to be, of a chain of emigration so much gone over the ship's side that one stands in dismay lest the whole should follow. With these thoughts uppermost you would naturally turn to see what was being done to preserve the remaining few. In the houses you enter there is not much of all that the twentieth century is proud of. On every side you see signs of disease spreading unchecked. The young maimed or dying from tuberculous disease, the old dying from cancer; lunacy on the increase; typhoid and typhus fever calling forth heroism and striking down those who display it. Perhaps in some cottage you may come across a dispensary medical officer doing what he can to cope with the difficulties. It may be a sore-throat which if not isolated at once would spread diphtheria or scarlet fever far and wide—one which my friend of the railway carriage would treat with five grains of phenacetin; or it may be a crippled child for whom a Thomas's splint is necessary. If the latter, the medical officer will be trying to collect 25*s.*, the price of the splint. No doubt the Chief Secretary will give £1. Perhaps when you get outside he may ask, "Where will the other 5*s.* come from?" Be sure you tell him the custom of the country, "The doctor will give that himself," and do not fail to add, "and well he may out of his fine salary."

A dispensary medical officer: what a quantity, what a vast, unmeasurable quantity, of grand unselfish work is covered by that name. Here and there, it is true, are to be found a few careless and intemperate in many ways. The casual observer is impressed by them, he goes his way ignoring the hundred others who day and night are expending their best energies in the service of the poor. Some pathetic incident gives the general public a glance at this everyday life and they forthwith stand amazed at the heroism therein displayed. It does not detract from the honour of those who wear the Victoria Cross to say that thousands who have shown an equal bravery are going unregarded through life. Could we but resuscitate and have amongst us for this occasion the late Mr. William Smyth of Burtonport, how his manly heart would respond and glow with pride to my saying that the work he died in doing is being done in the same heroic way by practically every dispensary medical officer in Ireland whenever occasion demands. To how many a one could not we who know them apply the words of Browning inscribed on a tablet erected in Templecrone Church in memory of Mr. Smyth:—

> "One who never turned his back, but marched breast forward,
> Never doubted clouds would break,
> Never dreamed, though right were worsted, wrong would triumph,
> Held we fall to rise, are baffled to fight better,
> Sleep to wake."

In saying this I am not indulging in mere verbosity. I am simply stating matters of fact. From the *Londonderry Sentinel* of August 25th I learn that at least Dr. Brendan MacCarthy, a man of whom we at St. Vincent's Hospital are justly proud and who worked with Mr. Smyth on the memorable occasion two years ago, is still marching as he had always marched, "breast forward." I read from that paper:—

> Dr. MacCarthy, addressing the guardians, said, as they were aware, typhus had reappeared in Arranmore. He was on the island last week and visited not only the houses in which the outbreak occurred but the houses upon which he had occasion last year to report unfavourably and he did not find any real improvement. Typhus fever was essentially a disease of dirt and overcrowding. It was the scourge of gaols and armies before the importance of cleanliness and air space was understood. Typhus was disappearing from the face of the globe because it could not stand for a moment before sunlight, fresh air, and soap and water. But in different parts of Ireland the houses were of an unhealthy description. The windows were not of a proper or sufficient size to let in God's pure sunshine, the floors were of clay, the roof defective, and the walls damp. The family was huddled and crowded in the house, and lay in unhealthy box-beds, with which they were all familiar. Those were the conditions for breeding typhus and naturally they had outbreaks in such a house, for every cause for such was there, and very plain to be seen. Then, again, when there was such a loathsome and infectious disease as typhus in the house, the priest or the doctor who went into that house did so at the imminent

risk of his life. But that same case could be visited and nursed with comparative safety if the fresh air and sunlight were allowed to come freely into the house and dilute the poison.

[After comparing the attention given by the State to munitions of war with its neglect of the individual man Mr. Tobin concluded as follows:—]

The all-importance of the issue and the lethargy of our rulers necessitate, and constitute the justification of, the attitude of the profession towards the Irish Poor law medical service. Not in the interest of the individual—though his lot, however inadequately set forth by me, is hard indeed—not in the interest of the profession, but in that of the public weal do I say to you: join the Irish Medical Association and, for the present at least, leave the Poor-law medical service alone.

Presidential Address
ON
SOME QUESTIONS IN SEASIDE CLIMATOLOGY.

Delivered at Westgate-on-Sea before the British Balneological and Climatological Society on Oct. 30th, 1903,

BY ALFRED F. STREET, M.A., M.D., D.P.H. CANTAB.

"Ὦ δῖος αἰθὴρ καὶ ταχύπτεροι πνοαί,
ποταμῶν τε πηγαί, ποντίων τε κυμάτων
ἀνήριθμον γέλασμα, παμμῆτόρ τε γῆ,
καὶ τὸν πανόπτην κύκλον ἡλίου καλῶ."

"Æther divine, and you swift-winged winds,
Founts of the rivers, seas and ocean waves
That smile innumerous, thou all-mother Earth
And thou all-seeing orb of the great sun,
On you I call."

GENTLEMEN,—When I realised that one of the duties of the responsible office to which you have done me the honour of electing me would be the production of an address I decided that I would attempt to deal with some topic relating to the sea. For inspiration I consulted an eminent Fellow of the society and his reply was as follows: "I should consider the factors of a bracing climate, because yours is about the most pronounced specimen of the sort that I know." What follows will therefore concern certain questions which have long and deeply interested me with regard to the air of the north-east corner of Kent in which I have the good fortune to live, air which the late Dr. Ord has called "singularly pure and invigorating," and which Dr. I. Burney Yeo tells us has "important tonic properties," a locality of which Dr. W. Ewart wrote that it has a soil drier than almost any other in England, which is the last to be visited by the storms which come to us from the Atlantic, which owing to the absorbent qualities of its soil has its land wind more than usually free from moisture, which enjoys almost the full advantage of the warmth of the Gulf Stream and in this respect excels the more northerly east coast watering places of Great Britain, and against which his only indictment is that it is "hyper-ventilated," for it is on record that the average number of calm days in the year is only 38. That close observer, the late Sir James Paget, said to me nearly 20 years ago that his experience was that many scrofulous patients would get well there when they would not get well elsewhere. He frankly admitted that he could not say what special property the air had but as to its effects he entertained no doubt, and though his claim may not be universally admitted that point may be waived.

When eight years ago this society was founded I hoped to hear the answer to this problem, and though it has not come can we in the light of the fuller knowledge of to-day point to facts which may to some extent explain the essential causes of differences of climate such as do not find full explanation by the barometer, the thermometer, and the other ordinary meteorological instruments? For it has been very truly said that just as no two faces are alike so there are no two places having quite the same climate. The factors of climate are said to be reducible to (1) the distance from the equator; (2) the distance from the sea; (3) the height above the sea; and (4) the direction of the most prevalent winds. But this is only a very partial statement of the truth; for instance, it takes no cognisance of so potent a factor as the Gulf Stream to which we in these islands are indebted for the advantage that though London has the latitude of Labrador it has a far higher mean winter temperature. Nor does the statement that "weather spells climate" carry the whole truth, for there are many other factors in climate, at any rate in local climate, which after all is what chiefly concerns our patients. Besides such local influences as the Gulf Stream there are the configuration and inclination of the land; the character as to porosity or drainage of the soil; the presence or absence of vegetation, of cultivation, of plantations, or of forests; the degree of protection afforded by trees, by mountain ranges, or merely by higher ground in the vicinity; the density of population, the neighbourhood of manufactories and their nature, and so on. It would be more true to say that climate depends upon soil, air, temperature, moisture, solar radiation in all its many forms, and possibly on electrical and other even less known conditions. Can we make any notable advance towards that clearer insight which enables us to replace empirical by rational knowledge?

In considering the claims of any locality with reference to the cure of any disease the first question which presents itself is, to what extent the disease in question prevails among those born and bred in the locality? If we take scrofula as an example it must be conceded that the north-east corner of Kent, for instance, comes out exceedingly well. Those who practise there find very little home-grown tuberculosis and imported cases commonly do well. In the face of the prolonged experience of many careful observers extending over many years it would surely be unreasonable to deny the claims of various localities to be credited with various cures, and the further question arises as to what factor or combination of factors a particular locality owes its influence. We all know that in the case of a spa the popular answer is "to the waters" and in the case of most seaside places "to the air." When a visitor comes to the seaside it matters not whether he feels better or worse. The cause so far as he is concerned is "the air"; perhaps he calls it "the strong air." He does not know what he means by the epithet "strong" but it has the advantage of being capable of conveying either praise or blame. Indeed, one constantly finds it considered capable of producing diametrically opposite effects in different people. One has diarrhœa. The cause is not unripe plums but "the strong air." Another is constipated; he forgets all about his personal negligences and again it is "the strong air," and so on. But we here have no concern with the vox populi; we seek for facts and for legitimate deductions from them and, finally, if possible, for explanations of them.

We cannot credit the air alone with antituberculous virtue, we must give due weight to sunshine and dryness of soil and to many other climatic factors. Relative humidity is a very thorny subject not now to be especially considered, but its importance may be judged from the calculation that every pound of water condensed from vapour liberates heat sufficient to melt five pounds of cast iron. Yet it does appear that there is in the air of certain localities a quality which cannot be expressed by chemical symbols and yet of which some of us are conscious. I cannot better express it than by the term "briskness," for it is not coldness, neither the coldness measured by the thermometer nor the other coldness so especially appreciated by the skin. It is felt by night as well as by day and is therefore not wholly dependent upon sunshine. It is most pronounced during the prevalence of winds which are not westerly and which have come from over the sea either directly or nearly so. It has been truly said that "each health resort is distinguished from all others by meteorological conditions of its own," and the more closely we investigate these the more differences do we find beyond the invariable differences of latitude and longitude; in fact, Professor A. Buchan declares that "we are only on the threshold of a rational inquiry into the true character of seaside climates." We are told by a writer in the last number of our journal that "few seaside places are really bracing," but he will not carry that proposition *nemine contradicente*.

Let us now consider how geographical position affects the physiological effects of air. Is there, for example, a greater percentage of ozone? Now ozone has long occupied a commanding position in this connexion but one of the objects

of this address is to submit to you that ozone is, like many other prominent folk, an impostor. There is no question of denying its existence or of doubting its constitution, nor its willingness to part with its odd atom in the good cause of oxidation, but is there convincing evidence that it is produced in nature except during thunderstorms as was known to Homer by what he calls the smell of the thunderbolt? In a recent article Professor Abbé asserts that there is no such evidence. Yet its presence should be determinable beyond doubt since Hartley, Chappuis, and Schöne agree in saying that it has a definite absorption spectrum. Professor W. A. Miller wrote as follows: "The existence of traces of ozone in the atmosphere, probable though it is, cannot be said to have been unequivocally proved." Other observers have asserted that it is formed in nature in various ways. Thus M Peyron found that papers moistened with a solution of starch and iodide of potassium and suspended over a patch of growing lucerne acquired a deeper colouration than similar papers similarly suspended over a neighbouring plot of ground free from vegetation. Now this test was hopelessly discredited years ago, for it can easily be proved that such papers react to peroxide of hydrogen and to nitrous acid and to other bodies often present in the atmosphere, and that unless the iodide of potassium has been freed from iodate even the carbonic anhydride of the air in presence of water will discolour the paper. There is the further difficulty that the so-called iodide of starch is said to be volatile, especially in presence of much moisture, and, at any rate, ozonoscopes are found to fade on continued exposure. The fact is that no satisfactory test for ozone in air has yet established its position.

It is asserted that ozone is formed when electricity is generated by the friction of waves beating on rocks, it has even been asserted that it is formed during the combustion of carbon in air. There are many other tests for it, such as red litmus paper moistened with a solution of iodide of potassium, paper moistened with a solution of thallous hydroxide which it turns brown (probably peroxide of hydrogen does the same), or by one of manganous chloride, and in the laboratory chromic acid will decompose peroxide of hydrogen and not ozone, but this test has not been applied to the atmosphere.

Again, ozone may be distinguished from both peroxide of hydrogen and nitrous acid by the red colour which, according to Erlwein and Weyl, it alone gives with metaphenylene diamine in the presence of an alkali, but this, too, has not been used in the case of atmospheric air. From spectroscopic observations Schöne concludes that there is no more than a probability of its presence in the atmosphere, and Sir W. Ramsay, a great authority on subjects connected with the atmosphere, states in a recent work that "the occurrence of ozone in the air is still a matter of dispute." Yet most books on climatology not only confidently assert its presence but distinguish between places and seasons in which it is more or less prevalent. Thus we are told that there is more in mountain air than in sea air and *vice versâ*, and more in the spring than at other seasons, and more in forests than over plains, and one third more in air from over the sea than in that from over the land, and it is stated by Würster that it is formed by the action of sunlight on clouds and by silent atmospheric electrical discharges. Though the ozone produced by electricity in the laboratory is destroyed by heat this is probably due to the fact that the electricity has subjected it to strain and that it has thus been formed in excess of the equilibrium value for ordinary temperatures. Gantz believes that he has shown that the ozone formed by lightning is generated not by the electricity but by the heat which results from the electrical discharge, and Professor Nernst at the recent German Congress of Applied Chemistry has pointed out that owing to the enormously high temperature and great gravitational pressure the oxygen in the sun is probably wholly in the condition of ozone, and this view is borne out by the fact that being an endothermic body it becomes more stable the higher the temperature to which it is raised. So ready is ozone to part with its loosely attached atom and so universal is the presence of oxidisable matter in the localities where ozone is said to be produced that it is hard to understand how sufficient can escape destruction to enable us to detect its presence except perhaps by means of the spectroscope, for it is said that it is never present in greater quantity than 1 part in 700,000. It would indeed relieve us of many of our sanitary difficulties if ozone were produced by nature in large quantity.

Apparatus for the production of ozonised air in the sick-room is advertised by instrument makers, but apparently the demand for it, and perhaps also the utility of it, is not very great, for according to the late Sir B. W. Richardson even small percentages of ozone in inspired air cause inflammation of the respiratory tract, and it is possibly for this reason that it does not seem to have been considered advisable to add it to the oxygen which is manufactured for use in cases of pneumonia. Oudin asserts that the inhalation of ozonised air causes a rapid increase in the hæmoglobin of the blood, though he does not indicate how this is effected. In places where the difficulty of dealing with dead seaweed is insuperable it is locally said to exhale ozone, and I remember that on visiting a resort where the retreating tide exposed many acres of sewage-polluted mud I was asked to believe that the mud generated ozone. The so-called ozone of pine forests may be due to peroxide of hydrogen, but there is evidence that it is camphoric acid and not ozone at all.

In connexion with the claims of ozone there are those of peroxide of hydrogen to be considered, but we know scarcely more than that chemists have been aware of its existence in atmospheric air since it was discovered by Schönbein in 1840. He found that it was formed together with ozone during all the slow oxidation processes in course of which the latter is formed and also during its electrical production. It has no smell. It has been found by Clermont in most unexpected places—in vines, in lettuces, and even in tobacco juice. There are special chemical reasons for believing that it is present in the atmosphere, for Fenton has shown that tartaric acid in the presence of iron gives when exposed to air and sunshine the characteristic reactions of dioxymaleic acid, and he finds that sunshine and air may in this reaction be replaced by peroxide of hydrogen but not by ozone nor by nitrous acid, so that he very plausibly argues that peroxide of hydrogen is formed by the action of the sun on the air. But books on climatology disregard it and no one seems to have concerned himself about its influence whether climatological or physiological, though Meissner in 1863 claimed to have detected its constant presence in atmospheric air and Struve found it in water and in snow. There is not much probability that it will succeed to the reputation which ozone does not deserve, though such influence as it has is no doubt good, because like ozone it is always ready to hand on its extra atom of oxygen.

It has been supposed that the chloride of sodium diffused in the air by spray from the sea has a tonic effect but it seems hardly reasonable to think that a very minute quantity of a chemically inert body should have an important effect on the body which is permeated by fluids which contain it in plenty. Iodine and bromine have also been brought forward, but in what compounds and in what quantities we are not told, and considering the usual medicinal doses of their compounds the quantities possibly present in the air must be quite unimportant. A consideration of what is known of argon, helium, krypton, neon, and xenon shows them to be extraordinarily inert, for they are said to form no known compound and therefore to have no polarity. One is inclined to wonder if there is not here an exception to what is said to be the only undisputed maxim in philosophy—namely, "Natura nihil agit frustra"—but in the hands of Professor G. D. Liveing and Professor J. Dewar the spectroscope has shown that in the case of krypton at any rate the maxim still holds good, for krypton is probably responsible for one of the green rays of the aurora borealis. The same observers tell us that in the spectrum of the gas which separates from atmospheric air solidified by liquid hydrogen, and which has so far proved to be incondensable, there are a vast number of rays which are most brilliant at the violet end and which belong to elements hitherto unidentified. This spectrum suggests the presence of more than one unknown substance in the most volatile portion of the atmosphere. Can there be here any gas of climatological or physiological importance? Is there a yet undiscovered element minute as it must be in proportion but potent in action? When we remember the wonderful properties of the most minute fragment of a compound of radium or the powerful physiological action of very small fractions of a grain of hyoscine or of adrenalin it is not impossible to think that an element or compound as yet unknown may be responsible for important therapeutic effects.

Professor Buchan tells us that the fundamental element of climatology is the temperature of the air. Only 50 per cent. of the total solar radiation due, so to speak, on a given area at the sea level ever reaches that area. Even when the

sun is at the zenith the amount which arrives is very much less than 100 per cent. and by no means all of this is heat, especially as our atmospheric envelope is more transparent to the rays of shorter than to those of longer wave length. Now the temperature of this air is one of the few things we need not argue about for it has been observed daily steadily and systematically for some 23 years by the indefatigable observers of the Royal Meteorological Society. The maxima, the minima, the average, and many other data are on record, and the facts are that the average daily range is moderate (namely, 11·3° F.), as that of every seaside place must be owing to the moderating influence of the sea, and that the average temperature equals that of London, partly no doubt owing to the fact that the sunshine average is over 20 per cent. more at the former than at the latter place. Owing to the influence of the Gulf Stream aided by the preponderating prevalence of south-west wind the winter isothermal lines of Great Britain lie nearly north and south instead of east and west. The isothermal line of January slants across England from Dover to North Wales and passes thence along the west coast of Scotland. The greater frequency of barometric variations near the sea may tend towards the attainment of that perfection of organic life which is said to depend on the alternations of excitement and repose.

There remains to be mentioned hydrogen which is undoubtedly present in our atmosphere; but for every gas there is an altitude at which as many molecules diffuse outward as inward in unit time, and recent physical deductions lead to the conclusion that such hydrogen as the earth exhales, so to speak, into its atmosphere from the pores of certain minerals leaves the extreme confines of our atmosphere on its way through interplanetary space to join the atmosphere of the sun, the gravitational attraction of the earth's mass being overcome by that of the sun, but even if it stayed with us it is not clear what physiological effects it would have except as a diluent of oxygen.

Is there a greater percentage of oxygen in sea air than in land air? I know of no evidence that there is, though Dr. Angus Smith found 0·92 per cent. more than the average in the air of the Western Highlands, and though volume for volume there is, of course, more oxygen in sea air than in mountain air. But if there be any such preponderance, however small, it would be likely to exert a stimulating effect, just as we know that a small decrease of the normal proportion of oxygen is depressing, and it is certain that there are variations in the proportion of carbonic anhydride. Thus there is less in exposed than in sheltered places and less in air from over the sea than in that from over land, more by night than by day, and more in summer and winter than in spring and autumn. Just as it is not possible to predicate the therapeutic effects of a given water from a consideration of a laboratory analysis of it, so it is not at present possible to explain the difference in physiological effect between the apparently similar air of different places. At one of the earliest meetings of this society Dr. W. V. Snow very rightly told us that it was not so much to the composition of a water that we must look as to the results upon the patient that experience had shown could be obtained. We must not neglect the teachings of experience only because we cannot explain them and this applies to air quite as much as to water, and we have to remember that the best chemical analysis would be eluded by a hitherto unrecognised element, and it is only recently that the very existence of several normal constituents of the atmosphere has been established. Helium is an apparently inert element but is it certain that its presence and that of argon in the water of one of the Bath springs have no influence on the therapeutic effects of that water? Can it be certain that it is there merely in solution? If not, it may in combination be capable of results as astonishing as those of some compounds of the typically inert nitrogen.

Is it lawful to surmise that some as yet unknown element gives its peculiar character to the air of some localities, or shall we find our explanation in the new and mysterious property introduced to us by Becquerel as radio-activity? It is true that hitherto the chief sources of radium and polonium, the best known of the radio active bodies, are minerals such as pitch-blende and chalcolite and not the ocean, but Wilson has proved the existence of a radio-active substance in filtered rain water and in snow and hail, especially during a thunderstorm, and it is not destroyed by heating the containing vessel to dull redness. Professor J. J. Thomson has extracted at least two radio-active gases of great density from many different deep well waters and has shown that their radio activity is different in kind from that of radium in that they render radio-active a negatively electrified surface and not an unelectrified one. Strutt finds radio-activity to be widely diffused and that there is some in most metals. Sir Oliver Lodge surmises that radio-active emanations (the so-called α rays) which are believed to consist of actual atoms of matter may proceed from many substances without our being yet aware of their existence. Rutherford and Allen have found that a negatively charged body exposed in the air becomes radio-active and they conclude that therefore there is some radio-active substance in the atmosphere. Sea water has not, it seems, hitherto been subjected to examination as to its radio-active properties, but it is reasonable to suppose that in this respect it is more likely to resemble well water than surface water. Before the discovery of radio-activity Dr. Julius Hann wrote: "There can hardly be any doubt that there are still other modifications in the composition of the atmosphere which have some influence on the human organism but which have not yet received any attention."

May we expect any help from a consideration of variations in the electrical or magnetic conditions of different localities which Dr. S. E Solly considers to be very important? The mysterious and elusive character of electricity and magnetism tempts us to ascribe to them any characteristics which are apparently not otherwise explicable, just as the ancients invoked the aid of magic, and it may be that we shall find in them the answer to this problem, for undoubtedly some people are especially sensitive to abnormal atmospheric electrical conditions, and it has been experimentally shown that strawberries ripen sooner and in greater numbers when grown under the influence of an electrical field. A beneficial effect has been observed in the case of plants grown under one of the poles of a Wimshurst machine and this cannot be ascribed to ozone, which is formed chiefly at the positive pole, whereas the plants in question did best near the negative pole. Elster and Geitel have arrived at the conclusion that free ions exist in the atmosphere and if this is so they may be of physiological importance. Now we are told that the average amount of electrical force is least when the wind comes from a point midway between north and north-north-west—that is to say, from a point midway between the true and the magnetic north poles—and yet this is the wind which seems to me to deserve more than any other the epithets brisk, bracing, and stimulating. But Professor P. G. Tait writes that "our ignorance of the source of atmospherical electricity is singularly complete."

Let it be granted, then, and granted I think it must be, that the atmosphere of some localities has special properties, and let it be admitted that we cannot at present express these properties in terms of any known element or force, then there arise two questions: Firstly, in what circumstances are these properties therapeutically valuable? and, secondly, can we in any way preserve, intensify, or diffuse these properties? In attempting to answer the first of these questions a sentence of de Chaumont seems apposite—namely, that to "the healthy meteorological conditions are of little moment apart from personal comfort." On the other hand, what patients would derive benefit from such a climate and for what patients would it be undesirable?

When we try to work out the answer to these questions we find ourselves in the position of the medical man who is called upon to prescribe a diet not for a disease but for a patient. It is comparatively easy to prescribe for an abstract disease—that is what the text books do—but how difficult for a concrete patient and one, too, who probably has strong and inconvenient leanings and antipathies or idiosyncrasies, such, for example, as an unusual sensibility to diminished atmospheric pressure similar to the case of cats which, according to Dr. Burney Yeo, cannot be acclimatised in certain localities of high elevation. The determination of principles for the selection of climates is one of the most vitally important services which this society can render to our profession, for it is impossible to trust most of the hard-and-fast rules which are offered for our guidance. Is it not rather common to hear a patient say: "I was sent to such and such a place but I hated it all the time I was there," or "I went and I did all the doctor told me to do and I came away worse than when I went." If not an *opprobrium medicinæ* this is at any rate an *opprobrium medici* and when we have taken off a large discount for the exceptionally

foolish and the merely mistaken, is there not an appreciable residue? The public, of course, label places with the names of certain diseases just as they label consultants and there is a real difficulty before us when we try to avoid the same pitfall.

May we not rightly argue that owing perhaps to the strain and stress of modern existence and the constantly increasing proportion of town-dwellers there is more need for, and advantage to be gained from, a climate which is stimulant than from one which is sedative, from strychnine rather than from bromide of potassium? Dr. Burney Yeo maintains that sea air makes less demands upon the organism than does mountain air. A late president of the American Climatological Association describes sea air generally as a "sedative tonic" and he sums up as follows: "Considerations so many and so difficult enter into the fitting of an individual case to the particular climate that it would be a futile effort to prescribe special climates for special diseases." Nevertheless, we may say, as Dr. Leonard Williams has recently very forcibly said, that in the case of some diseases certain climatic combinations are to be avoided. There are constitutions in which a stimulant atmosphere produces a feeling of general discomfort and there are people who have idiosyncrasies with respect to climate just as others have with respect to drugs.

Now just as those who make the fewest mistakes in the prescribing of diet are those who consider the likes and dislikes and who know the ordinary mode of life of a patient, so shall we most successfully give advice in respect of climates if we carefully consider not only the name of the patient's disease but his climatological likes and dislikes. The man of open windows is likely to thrive best in stimulant air and the man who is sensitive to draughts may be better suited by a more sedative climate, for in some persons the automatic control of the vaso-motor system is clearly either undeveloped or too slow. Nor can we afford to lose sight of the great importance of aspect. How often it happens, especially in the spring, that there is one climate on the north side of a wall and another on the south side. There is no need to insist on the need of avoiding dry cold wind in cases where damaged kidneys are able to do only part of their duty or for pulmonary cases enfeebled by prolonged suppuration, nor does anyone in England need to be reminded that one cannot in England reckon on summer weather in summer time nor, indeed, upon winter weather in winter time. Most children are the better for a stimulant climate and of the people best suited by a sedative climate a large proportion are aged.

My second question is soon answered. "Man," it has been truly said, "cannot change the weather by any device yet suggested," not even by American methods of rain production, yet he does affect climate by removing trees (for vegetation increases the humidity of the air, though not the actual rainfall) and by drying the soil by works of drainage, or by supplying it with water as by means of the Assouan dam, and by the cultivation of previously barren spots. We can preserve the life-giving properties of our air by cultivating the highest ideals in sanitary matters. It is of little use to live at the seaside with shut windows and in air used up by overcrowding and fouled by dust and by pestilential sewers and filthy dustbins, and it is universally admitted, or should be so, that a dry subsoil and clean underground air are essential to high sanitary excellence. Parasitic microbes grow most readily in warm, moist places and it has been calculated that in the course of a single day a man inhales 10,000 litres of air, so that determinations of the number of living micro-organisms present in the atmosphere at the ground level at once assume great importance. Now it has been shown on the one hand that an adult in Manchester inhales in the course of ten hours 37,000,000 microbes and that in London there are present from 80,000 to 210,000 solid particles in each cubic centimetre of air, and on the other hand that in the air of the Western Highlands the corresponding number is only 16. In these respects a great responsibility rests upon our profession, the responsibility of helping to educate and to influence not only our patients as such but all who hold office in the public bodies by which we are more or less misgoverned.

Finally, I would ask you to assent to this proposition. The places in our islands which enjoy most often a pure and stimulating atmosphere are those the air of which comes most often from over the sea. The more directly it comes from the sea and the longer it has been away from land the more pure it is. Its stimulating properties depend partly upon its relative humidity, partly upon its temperature, and partly upon factors not yet thoroughly understood. "I speak as unto wise men, judge ye what I say."

A Lecture
ON
PATENT MEDICINES.

Delivered at the London Hospital Medical College on Nov. 10th, 1903,

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GENTLEMEN,—On a previous occasion I have considered with you the merits—and also the demerits—of the various patent foods and I have asked you to meet me to-day in order that we may study together the kindred subject of patent medicines. I have done so because I feel strongly that this is a subject upon which you ought to be informed. You will be expected by your patients to give opinions on these preparations and your opinion cannot be an intelligent one unless you know something of their composition. And if it should be your duty, and in my judgment it often will be your duty, to condemn patent medicines, you must be prepared to give a reason for the want of faith that is in you. That must be my excuse for burdening you with yet another lecture.

The first question we have to ask ourselves in approaching this subject is, what is meant by a patent medicine? How should one define the term? Now in the legal acceptation of the word a patent medicine should comply with two requirements. It is laid down in the law of the subject first, that it must be a genuine original invention; and, secondly, that a complete description of it must be filed at the Patent Office so as to be easily obtainable by the public. I need hardly say that neither of those requirements is fulfilled by the majority of the preparations to which the term "patent medicine" is applied. If you consider the former—namely, that the preparation must be a genuine original invention—I have merely to read you an account of some patent medicines that I have collected from the records of the Patent Office to show you to what extent such a description is applicable. I find, for instance, that in July, 1892, a patent was taken out for a specific for the alleviation of asthma or bronchial affections, of which the following is the recipe: "Steep crushed eggs in lemon juice so as to dissolve the shells, add some rum and strain." That may be an original invention, gentlemen, but whether it is likely to be curative of asthmatic affections I think is extremely doubtful. In October, 1890, a medicine was patented for the cure of pulmonary affections which is directed to be made by mixing one gallon of extract of cloves, a pound and a half of honey, and one pound of brown sugar-candy. In February, 1895, a certain Mr. Richardson showed great originality by taking out a patent for a medicine for the cure of rheumatism, which consisted of a mixture of sodium salicylate and water. I need not trouble you with further examples other than to mention the original idea of the gentleman who took out a patent for some pills which were to counteract the effect of taking too much alcohol, the pills consisting of powdered coffee. So much for the first of these requirements, that it shall be a genuine original invention. And I need hardly point out to you that the second requirement—namely, that a full description shall be published so as to be readily obtainable by the public—is one which is not likely to be observed in practice. For obvious reasons it is one which would hardly commend itself to the average patent medicine vendor. Hence it is that the majority of so-called patent medicines are not so in the legal sense at all; they are much better defined as secret remedies or nostrum (from the Latin word which means "belonging to us alone"), and I would remark in passing that this word "nostrum" breathes a spirit which is entirely opposed to

what is one of the finest traditions of our profession—namely, that if anyone discovers a method of treating a disease which he believes to be new and successful he publishes it at once for the benefit of the profession at large. That is entirely opposed to the meaning of the word "nostrum," and that is where we, the legitimate healers of the public, come into direct conflict with the spirit which animates the charlatan or quack. I think, indeed, that it would not be unfair to decribe most of the preparations of which I shall have to speak as "quack" remedies. On referring to a standard dictionary I find that a quack is defined as "one who cries like the common domestic duck," "one who makes pretensions to knowledge, particularly medical knowledge, which he does not possess." And I think it is not unjust to apply such a description to most of the people who sell the so-called patent medicines.

I turn next to consider the question of the stamp duty which is levied on patent medicines. In the year 1783, when the Exchequer was depleted after the war with the American colonies, the then Chancellor of the Exchequer looked around for sources from which to raise revenue, and he decided that patent medicines would be legitimate objects of taxation. Carrying out that idea a tax was levied by means of a stamp placed upon the bottle or box, and many of the preparations which I have upon the table show such a stamp. The ignorant part of the public naturally supposed that anything which bore a Government stamp must be something of peculiar value and presumably genuine, but it was not until the year 1885 that an effort was made to dispel that idea by printing upon the stamp the words, "No Government guarantee." Whether this addition has succeeded in its intended object is, however, more than doubtful. Such is the history of the introduction of the stamp duty on patent medicines and nostrums. Recently the Board of Inland Revenue has recognised that a number of preparations are escaping the payment of the stamp duty and it has tried to spread wider its net and to make such preparations pay duty also, for there has always been a degree of uncertainty as to which were taxable. In a recent decision by Mr. Justice Wills[1] it was laid down that remedies which are taxable are those which are recommended for the cure of any particular ailment. If, for instance, a man sells a box of pills labeled "antibilious pills" that thereby renders the box liable to stamp duty, because the word "antibilious" means that the pills are intended to cure the particular condition known as biliousness. On the other hand, with that extraordinary want of logic which often characterises things legal, such a mixture as "soothing syrup" is exempt from duty because it does not specify exactly what it is intended to soothe. The same is true of "tonic mixture," because no indication is given of what it is designed to tone up. That is at present the law on the subject, so far as I understand it. I do not anticipate that this extension of the duty to preparations which are intended to cure particular diseases will do much to discourage the use of patent medicines, but it will certainly add to the revenue obtained by their sale; and one is surprised in these days of tariff reform that the makers of patent medicines do not form a "Free Medicine League" and advocate the entire removal of duties from patent medicines, pointing out to the public the advantage of the large medicine bottle as opposed to the small!

Such being the history of the tax on patent medicines we may next look at their composition. I have placed in your hands a sheet which represents the approximate composition of a considerable number—but not by any means all—of the better known patent and proprietary preparations or nostrums. I wish it to be clearly under-tood that my analyses make no pretence to perfect accuracy. The analysis of many of these preparations, particularly such as are of vegetable origin, is often a very difficult matter and it has been found impossible to give quantitative results. I believe, however, that I have succeeded in representing the active constituents in most, if not all, cases.

APPROXIMATE INGREDIENTS OF VARIOUS PATENT AND PROPRIETARY PREPARATIONS.

Aperient and Liver Pills.

Beecham's Pills.—Aloes, ginger, and soap.
Baillie's Pills.—Aloes, colocynth, oil of cloves, and soap.
Bile Beans.—Cascara, rhubarb, liquorice, and oil of peppermint, coated with gelatin.
Cockle's Pills and Barclay's Pills.—Aloes, colocynth, and rhubarb.
Carter's Little Liver Pills.—Podophyllin (one eighth grain) and aloes ·oc. (one-third grain) in each pill.
Dizon's Pills.—Taraxacum, podophyllin, jalap, and soap.
Holloway's Pills.—Aloes, rhubarb, saffron, Glauber's salts, and pepper.
Page-Woodcock's Wind Pills.—Aloes, oleum carui, and soap.
Scott's Pills.—Aloin and cascara with a soap basis.
Whelpton's Pills.—Rhubarb, aloes, ginger, pulv. ipecac., and soap.

Saline Aperients.

Eno's Fruit Salt.—Bicarb. soda, tartaric acid, and citric acid.
Lamplough's Pyretic Saline.—Citric acid with bicarbonate of potassium and sodium.
Abbey's Salt.—Tartaric acid with bicarbonate of sodium, sulphate of magnesium, and sugar.

Cough Mixtures and Lozenges.

Congreve's Elixir.—Benzoic acid, infusion of elderberries, alcohol, and allspice.
Keating's Cough Lozenges.—Ipecac., lactucaria, squill, liquorice, tragacanth, and sugar.
Umbridge's Lung Tonic.—Balsam of tolu, oil of aniseed, and oil of cloves.
Balsam of Aniseed.—Contains aniseed and other ingredients with one-tenth of a grain of morphia in every ounce.

Preparations for Gout and Rheumatism.

Eade's Pills.—Salicylate of sodium, guaiacum, and aloes.
Gloria Tonic.—Colchicum, guaiacum resin, and iodide of sodium.
Blair's Gout Pills.—The active ingredient is colchicum.

Preparations for Headache and Neuralgia.

Antikamnia.—Bicarb. of sodium, antifebrin, and (?) caffeine.
Bromidia.—Bromide of potassium, chloral, hyoscyamus, cannabis indica, oil of aniseed, syrup, and water.
Bunter's Nervine.—Creasote, chloroform, camphor, balsam of tolu, and alcohol.
Kaputine.—Antifebrin and sugar (coloured).
Kay's Tic Pills.—Sulphate of iron, quinine, and soap.

Preparations for Asthma.

Crevoisier's.—Belladonna, foxglove, stramonium, sage, and nitrate of potassium in equal parts.
Hair's Cure.—Iodide of potassium and tar water.
Plant's Cigarettes.—Leaves of stramonium, lobelia, and green tea.
Tucker's Cure.—Atropine, cocaine, hyponitrous acid, and various balsamic extracts, administered by means of an aeriser.

Remedies for Obesity.

Trilene Tablets.—Sugar and a vegetable constituent of unknown nature.
Grey's Specific.—Contains 47·2 per cent. of free sulphur and a bitter (? gentian).
Mrs. Frost's Anti-Obesity Remedy.—The active ingredient is extract of fucus vesiculosus.
Russell's Anti-Corpulent Cure.—Citric acid (20 grains to half an ounce), glycerine, and water. The Pink Tablet = saccharine.

Miscellaneous Preparations

Buer's Piles Cure.—Ointment: Gall and hamamelis with lanoline basis. Powder: Precipitated sulphur and carbonate of magnesium.
California Syrup of Figs.—Senna (active constituent), syrup of figs, and cinnamon.
Doane's (Back ache) Pills.—1. White-coated aperient (dinner pills): Podophyllin, aloin, rhubarb, and peppermint. 2. Brown-coated (back-ache pills): Oil of juniper and a resinous constituent (? benzoin).
Guy's Tonic.—Phosphoric acid, tinct. cochineal, tinct. of gentian and chloroform water.
Dalby's Carminative.—Pulv. rhei, magnes. carb., glycerine, sugar, ol. menth. pip. and ol. anethi, and a small quantity of laudanum.
Chlorodyne.—Chloroform, ether, hydrocyanic acid, morphine, cannabis indica, capsicum, peppermint, and treacle.
Clarke's Blood Mixture.—The active constituent is iodide of potassium (about six grains to the ounce).
Ozden.—Powdered sugar and starch and ol. gaultheriæ.
Ozerine.—Bromide of potassium and iodide of ammonia, with chloroform water.
Pink Pills.—Sulphate of iron, an alkaline carbonate, and liquorice, thickly coated with sugar and coloured with carmine.
Phosferine.—Quinine, phosphates, and hypophosphites.
Seigel's Syrup.—Aloes, capsicum, liquorice, and treacle.
Steedman's Teething Powders.—Calomel and starch.
Warner's Safe Cure.—Nitrate of potassium (about ten grains to the ounce) and various diuretic herbs.
Woodward's Gripe Water.—Liquor magnes. carb., ol. anethi, sugar, and a trace of alcohol.

Drink Cures.

Mrs. Terry's.—Sugar (98 per cent.) and salt (2 per cent.).
Antidipso.—Chlorate of potash and sugar.

For convenience I have divided the various preparations which I have examined into different groups. The first comprises the aperient and liver pills which are amongst the most largely used of all patent medicines. The popularity of this group is a sign of the immense prevalence of chronic constipation and all its attendant ills. You will observe that most of these pills contain aloes as one at least of their active ingredients. Now aloes has, as you know, been long recognised as a useful habitual laxative and to most of the members of this group no objection can be raised on the ground of composition. Many of them are skilfully compounded and undoubtedly possess the aperient action to which they lay claim, but I need hardly point out that prevalent though constipation is it is by no means the only possible cause of all the symptoms which most of these preparations are

[1] *Times* Law Reports, No. 22, vol. xix.

supposed to be able to cure. The saline aperients are all effervescent preparations consisting of bicarbonate of soda on the one hand and tartaric acid or citric acid on the other. They are "elegant" and pleasant saline laxatives—only that and nothing more. The most striking point about the cough mixtures is that their makers have recognised what we, I am afraid, are sometimes slow to recognise—that most coughs are due to irritation of the pharynx and not to affections of the bronchial tubes. In most of them, therefore, the "demulcent" constituents predominate. That they are well adapted to relieve a pharyngeal cough need not be doubted, but that they can exert any curative influence in such a disease as phthisis is, of course, a mere delusion. The preparations for gout and rheumatism present one point of special interest. Colchicum and salicylate of sodium one is not surprised to find in them, but I confess that I was rather surprised to find that two of them contained guaiacum. And yet I believe the makers are right. Guaiacum is a drug which has probably fallen too much into disuse amongst ourselves. At all events, speaking from my experience in the out-patient room, I can confidently say that I have often found it afford great relief in chronic gout and in the so-called chronic rheumatism of old people. The preparations for headache and neuralgia are mostly of recent introduction and depend, to a large extent, upon a judicious exploitation of the virtues of the coal tar derivatives. The indiscriminate use of some of these is certainly not devoid of danger. Remedies for asthma have long been popular with the patent medicine vendor, and some of them, it must be admitted, have attained a wide and not undeserved reputation. I have indicated the composition of a few typical specimens, the composition of which, however, is already pretty well known.

The obesity preparations have given me more trouble than any of the others. In the case of some, at least, I was entirely unable to discover the exact composition. I fully expected to find that some of them would contain thyroid extract but in that I was disappointed. One of them consisted mainly of extract of fucus vesiculosus (bladder-wrack) which has long been believed to have a tendency to diminish stoutness, though its claims rest on no very strict scientific basis. Another consisted chiefly of citric acid, which is interesting when one remembers the popular belief that sucking lemons makes one thin. As regards several of the others I confess to being puzzled. This only I must say in fairness, that I had the curiosity to write to some of the people who had supplied testimonials to the makers of these remedies and found that, so far as I could discover, the testimonials were genuine and that those who supplied them believed at least that their weight had been reduced by the medicine. I can only say that I wish I knew of any remedy which could be counted upon safely to reduce weight in the absence of any change of diet.

Under "Miscellaneous preparations" I include a number of interesting and widely known nostrums of which, however, I have not time to speak in detail. This only I would point out, that a preparation which depends for its activity on iodide of potassium cannot be described as harmless; nor is one which contains considerable quantities of nitrate of potassium in any true sense "safe." Of "drink cures," perhaps the most objectionable product of the quack, I have examined only two. Their composition, unless I have entirely overlooked some other ingredient, is more eloquent than any words of mine could be. I would only say that in each case the preparation is intended to be given as a powder smuggled into tea or coffee without the patient's knowledge and is alleged to remove the craving for alcoholic drink and that for 24 little packets of the former I had to pay 5s. Oh, the eternal gullibility of the British public!

If, then, gentlemen, as the analyses have shown, these preparations contain nothing new and nothing mysterious why is it that they are so popular and that the revenue from their sale amounts to no less a sum than £300 000 per annum? I think, in the first place, that this popularity points to the existence of a great deal of minor illness for which people do not think it worth while to consult a medical man. To this I do not see that we have any reason to object because we cannot hope to possess a monopoly of attempting to cure people. It is open to anyone who thinks he can do it to try to cure somebody else if that person is foolish enough to allow him to try his hand; and so long as diseases exist people will try to find remedies for them without the intervention of the medical man. That one must admit. But apart from that I think there is a subtle psychological reason for the success of patent medicines. None of us like to confess that he has failed in the treatment of a case and that is specially true of the man who tries to cure himself. A patient buys a bottle of patent medicine and becomes his own physician. If he gets well he is immensely pleased with himself and at his discrimination in selecting (as he thinks) the proper remedy and he goes and tells his friends what a clever fellow he is. But if he fails and feels no better as a result of the purchase he says nothing about it. Hence the successes of patent medicines get talked about and their failures are buried in obscurity. By far the chief reason, however, of the success of patent medicines is, as I need hardly point out, persistent and audacious advertisement. The extent to which such advertisement is carried is almost incredible. Even in the middle of last century, which was before the great days of advertising, the patent medicine people were early in the field. It is said that when Dickens was at the height of his fame a firm of patent medicine makers offered him £1000 if he would mention their pills in one of his novels. He declined. When this was told to Thackeray he said that it was foolish to refuse, for he could have pocketed the cheque and killed off the villain with an overdose of the pills!

The subject certainly has its humorous side, but of many of these advertisements it is difficult enough for us who know the facts of disease to speak in temperate terms. It seems to me monstrous that people should be allowed for their own ends to produce in the public mind a true pathophobia or exaggerated dread of disease, to raise false hopes in the unfortunate sufferers from incurable maladies, and to obtain money from those who can often ill afford it by holding out illusory promises of cure. If people assert, for instance, that pills containing sulphate of iron and bicarbonate of potash will cure tabes, or that pain in the back is frequently a symptom of renal disease, they are saying a thing which is not true, and if they sell a remedy on that basis then if that is not getting money under false pretences that phrase has lost its meaning. Against such a state of things we ought as a profession to protest. The time is ripe, indeed, it is overripe, when we ought to make some organised effort against it and I look forward to the day when there will be appointed a committee or official body of some sort, representing, say, the British Medical Association or the General Medical Council, whose business it will be to inquire into the composition of these so-called remedies and to expose them. I do not think it is right that this should be left to the initiative of private individuals; it is a matter which concerns the profession as a whole. I am afraid, however, that the time is still far off when that will come about and in the meantime we must all do what we can in our private capacity to fight this evil. I believe, gentlemen, that there are two ways in which we can do so. First of all we must educate the public. After all, people still look to us, and rightly, to inform them about these as about other matters relating to their health. If necessary, we may have to educate the public in the elements of physiology so that they will realise what at present they seem incapable of realising, that the same set of symptoms may be produced by many totally different diseases, and will distrust the man who claims to have some panacea which will immediately effect a cure no matter what may be the cause. But if we are going to begin such a process of education we must begin at the top. Believe me, quackery is not confined to any particular section of the community; it would be entirely wrong to suppose that it is found simply among the more ignorant classes. It is as rife, nay, I venture to say it is more rife, in Belgravia than it is in Bethnal Green. The upper classes, the so-called cultured classes, have a belief in patent medicines and quackery generally which is almost incredible. And if we are ever to get legislation on the subject we must begin by educating our legislators.

The other weapon for fighting this evil we already have in our own hands. It ought never to be possible for a patent medicine vendor to say with truth that he has succeeded in curing a case where a medical man has failed and if he is to be unable to say that it means that we must give more attention to the treatment of disease, and particularly the treatment of minor ailments, than I think we do at the present time. You who are here have the opportunity in this great hospital of studying scientifically the diagnosis and treatment of disease and I ask you to use it well.

I take blame to myself that one does not always explain the treatment of cases in the wards as carefully as one might, perhaps because there is so much else to do. But in the out-patient room here you have an immense material for study, embracing examples of every form of disease. See to it that you use your opportunities there diligently and wisely, and if you do that then I can promise you that when you go out into practice you will have no need to fear the competition of the charlatan and the quack.

ON ALBUMINURIA AS AN ACCOMPANIMENT OF DIABETES MELLITUS.

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ALBUMINURIA has long been recognised as a frequent accompaniment of diabetes but widely different estimates of the frequency of the association have been given by different authorities. It is not surprising that this should be the case as grounds exist upon which variability may arise. Much depends upon the closeness and the exactness with which the albumin is looked for. Much also depends upon the length of time attention is given to the case that is the subject of observation and upon the class of case that is dealt with. Should the record be founded only upon one or two observations the absence of albumin might have to be reported, whilst if the observations had been carried on over a lengthened period its presence might have to be entered in connexion with the case. Cases also in an advanced stage of the disease are more likely to be attended with associated albumin than those belonging to an earlier period. It may be considered sufficient to say that albuminuria without any doubt constitutes a notably frequent accompaniment of diabetes. No useful purpose is served by going further. The frequency of the association is such as to preclude its constituting a merely incidental phenomenon and it is not permissible to do otherwise than conclude that there must be a connecting link between the two. Diabetics are not exempt from the supervention of other maladies as independent affections and, no doubt, albuminuria sometimes holds this position in connexion with diabetes, but it is inconceivable that it can do so in more than a minute proportion of the instances that present themselves. If we look at the cognate disease—diabetes insipidus—we do not meet with the supervention of albuminuria in the manner we do with diabetes mellitus. There is an absence of a factor which may be regarded as of prime importance—viz., the abnormal transit of sugar through the system.

Before proceeding further with the subject matter to be dealt with I will take the opportunity that is here presented of offering some remarks upon the clinical examination of the urine and of giving the results of my own experience upon the point. At a former period I entered closely into the question of the relative merits of the various tests for urinary albumin and came to a conclusion which time has only served to strengthen. Innumerable tests have been proposed and fresh ones continue still from time to time to be suggested. Only a few can lay claim to eligibility when looked at all round and amongst these the ferrocyanic test occupies, I consider, a first place in most satisfactorily meeting what is wanted. For many years it has been employed as my ordinary test and experience therefore enables me to speak with precision about it. In chemical works it is highly commented upon as a delicate and reliable test for albumin. Acetic acid and the ferrocyanide of potassium are the agents ordinarily employed. In applying the test to the urine the acetic acid in small quantity is first added and then the solution of ferrocyanide of potassium is dropped in. Ferrocyanic acid is liberated and if albumin is present a precipitate appears. The test ranks as one of the most sensitive known and at the same time one the reaction of which is least likely to lead to a fallacious conclusion. There are certain principles, nucleo-proteids (including mucin), uric acid, and oleo-resinous matter from drug administration, that are liable to be thrown down by any acid, no matter whether organic or inorganic, and these may appear as a precipitate from the ferrocyanic test; but no real difficulty is here encountered, all that is necessary to guard against fallacy being to use the acetic acid first and to take note before using the ferrocyanide if any sign of precipitate appears. If a precipitate does appear it cannot consist of albumin. It is only the precipitate that falls as a result of the addition of the ferrocyanide that does so. If any doubt exists comparative testing may be had recourse to in a couple of tubes, one with the acetic acid alone and the other with the acetic acid and ferrocyanide. It frequently happens that nucleo-proteid and albumin are present together. When this is the case the nucleo-proteid is thrown down in the tube with the acetic acid alone and the albumin is revealed by the extra amount of precipitate noticeable in the tube where the ferrocyanide is present. I consider a great advantage belonging to this test, in addition to its other qualities, is the avoidance it affords of the employment of anything of a corrosive nature like, for instance, nitric acid. Further, the test is susceptible of being put into the portable form of pellet. Many years ago Mr. Cooper, of 66, Oxford-street, at my suggestion, made these pellets for supply to the profession and they have ever since been sold by him. The citric takes the place of the acetic acid for one pellet and the other pellet consists of the ferrocyanide of sodium, this being used on account of its giving a product which dissolves with much greater facility than the potassium salt. In the application of the test in this form, in which it is always conveniently ready for use, all that is necessary is first to drop in the acid pellet and shake and dissolve, and then to drop in the other and similarly shake and dissolve, when the result becomes at once apparent. By the lamina method of testing a recognisable indication may be afforded when none is perceptible with the ordinary mode of procedure. This test lends itself well to this mode of application. A few of each of the pellets are dissolved in a small quantity of water in a test-tube so as to produce a concentrated solution, on to the top of which the urine is trickled down. The faintest amount of albumin is in this way brought into view by the lamina formed at the line of contact of the two liquids, and with the ferrocyanic test an indication may be perceived when none is discernible with nitric acid used in a similar way, on account of the obscuring effect of the colour that may be developed in the latter instance.

Since the introduction of the centrifuge the microscopic examination of the urine has been placed upon a much more satisfactory footing than it held previously. It is certainly a great advantage to be able to carry out the chemical and microscopic examination of urine at the same sitting as can now be done. Centrifuging for seven or eight minutes is found to suffice for fully meeting what is wanted. Whilst the hand machine may be made to serve the required purpose where no other power is available, much tedium and labour are saved by the adaptation of water or electric power. Two or three years ago I obtained from Messrs. R. and J. Beck, of 68, Cornhill, a centrifuge worked by an electric motor connected with the house electric supply and nothing could be desired to answer better. I should say from my experience that besides the advantage afforded in relation to convenience the centrifuge gives greater reliability to the examination than is otherwise attainable.

In albuminuria as a concomitant of diabetes the amount of albumin is ordinarily not large; indeed, more frequently than not only quite small. An appearance is sometimes given of an increase occurring with the decrease of sugar arising from the effects of treatment. It may happen when a case first falls under observation that only a slight indication of albumin is perceptible. Later a much more pronounced precipitate is noticeable. With this, however, the urine has become diminished in amount, and here lies the explanation of the apparent increase. In proportion to the decrease in the amount of urine so is the apparent increase in the amount of albumin. It stands as a result of lessened dilution.

As I have said, experience shows that albuminuria is of notably frequent occurrence in association with diabetes. From this it may be taken that some condition or other connected with diabetes tends to affect the kidney and to lead to the production of albuminuria. It does not, however, follow that in all instances this is the case. Albuminuria may become developed in the diabetic from the causes that lead to its development in the non-diabetic and thus constitute a purely independent affection. In this way we may have albuminuria on the one hand occurring simply as a concurrent malady, and on the other as a consecutive phenomenon attributable to the diabetes. As a rule, a

distinction can be drawn between the two from the features observable in connexion with the case. In the former of the two instances the albuminuria presents itself as a concomitant of Bright's disease which may happen to become independently developed during the existence of a diabetic state. When such an event occurs a different train of phenomena is met with from that following the advent of albuminuria as a consecutive condition upon diabetes. Springing from an outside source, the albuminuria is associated with the classical phenomena of Bright's disease. The case virtually falls in the category of Bright's disease and apart from the condition of the urine is easily recognisable as such by the characteristic symptoms presented. With Bright's disease developing in this way the diabetes may be found to decrease and even to disappear. As far back as at the Cardiff meeting of the British Medical Association in 1885 I mentioned that this result might occur and cited a case in which, after the development of a severe and typical form of Bright's disease, dietetic restriction was no longer needed for maintaining the urine free from sugar. Other authorities have since supported the statement. Von Noorden[1] says: "It is interesting and noteworthy that the glycosuria very often disappears in patients in whom granular atrophy of the kidney has developed (Frerichs, Stockvis, Fürbringer). The diabetes is cured but we do not know the connexion."

Bright's disease is not the only disease that appears to exert a restraining influence over diabetes. In former times, when diabetes was not controlled by dietetic measures as it is now, phthisis was frequently found to become developed. In my early acquaintance with the disease phthisis was of such common occurrence in connexion with it as to hold a prominent place amongst the perils to be confronted. It is true the association is still to be met with, especially in hospital practice, but taking my own experience at the present time I so rarely come across the combination that in the class of patients falling under my notice the danger of the supervention of phthisis may almost be regarded as constituting a negligible quantity. By far the most common source of fatal termination now observed when death occurs from the disease is coma and it is usual for the case to run on in its pure form until the coma sets in. Should the supervention of phthisis, however, occur and this disease assume a severe form, the phthisis may be looked for to become the predominant affection and more or less to eclipse the diabetes. The following are illustrative cases of this kind which although not immediately belonging to the subject in hand are of interest as examples of the production of an effect upon diabetes comparable to that following the supervention of Bright's disease.

CASE 1.—The patient was a man, aged 29 years when first seen by me on Dec. 11th, 1897. He came with the history of having suffered from hæmoptysis eight years previously and of having afterwards been delicate in the chest for a little time but of subsequently having thrown the condition off and become strong. A fortnight before coming to me he was taken with a sudden onset of severe thirst which afterwards continued unabated. Sugar had been recognised in his urine by a local medical practitioner the day before I saw him and his diet had not as yet been altered. The urine passed at the time of consultation was of specific gravity 1038 and contained 91 per 1000 of sugar. Opium and restricted diet were prescribed and the patient continued under the supervision of his local medical attendant till May, 1902, when he was sent to me again on account of latterly not having been so well. The urine was now of specific gravity 1030 with 38·5 per 1000 of sugar. It also contained a considerable amount of the acetone series of products. The restricted diet was being followed. In the early part of the July following I saw the patient again and there was now evidence of extensive breaking down of lung tissue going on. The morning specimen of urine was of specific gravity 1017 with 12·5 per 1000 of sugar. The acetone series were present. On July 21st urine was sent to me by the medical attendant with the statement that only 40 ounces were being passed in the 24 hours. With a specific gravity of 1022 there was 9·25 per 1000 of sugar. The acetone series of products had much diminished. I was told that necrotic disintegration of the lungs was advancing very rapidly. The diet had ceased to be restricted but the aptitude for taking food was very limited. Extreme weakness existed and death took place a few days afterwards.

[1] Diabetes Mellitus, New York, 1895.

CASE 2.—The patient was a man, aged 42 years. He had been the subject of diabetes for 18 months before his first visit to me on May 20th, 1902. There was a recent history of slight hæmoptysis, accompanied with some physical signs of phthisis in the right apex, but no tubercle bacilli had been found. The urine contained 65 per 1000 of sugar and a considerable amount of the acetone series of products. The patient was seen by me from time to time till July 10th, after which he returned to his home in Ireland. A fall to a certain extent in the amount of sugar had taken place but no substantial improvement had occurred. A little albumin was sometimes discoverable, at other times it was not, but, as is frequently noticeable in these circumstances, hyaline and granular casts were present. In the middle of the following October I received a letter from the local medical attendant stating that the patient died on Oct. 5th and that rapid phthisis killed him in the end. "The right lung," it was further stated, "had several cavities and the expectoration was very profuse. The diabetic symptoms subsided towards the end and there was never any coma. The mental faculties were wonderfully clear until two hours before death."

The albuminuria that presents itself as a consecutive phenomenon of diabetes stands clinically in a very different position from that which belongs to typical Bright's disease accompanying diabetes but arising from an independent source. What is usually noticeable is that there is nothing symptomatically, apart from the urine, to indicate its existence, and thus, if it were not for the evidence afforded by the examination of the urine, we should be unaware of the presence of anything wrong in this direction. Such is what is usually noticeable but I do not go so far as to say that occasionally there may not be something of a renal disease character about the pulse and the heart sounds to be found.

Much variation occurs with respect to the time of appearance of albumin. In the classical type of diabetic case—the kind of case which pursues an active course and the one that is the most frequently met with in the hospital ward, albumin is not usually discoverable until it may happen to show itself in connexion with the final stage of the disease. It is especially in the chronic case which has not been kept satisfactorily under control that albuminuria is most likely to be met with as a concomitant of diabetes previously to the setting in of the final or comatose stage. In cases steadily and fully kept under, by which I mean kept free from the passage of sugar, there is nothing to give rise to the discharge of albumin. Casts very frequently, but not always, accompany the albumin, and conversely, casts may be revealed when testing fails to reveal albumin. In cases of this kind ordinary testing may not display the presence of albumin but on resorting to the lamina method of applying the test a faint indication of it may be brought into view. I may state, however, that not even this has been noticeable in some of the instances I have come across where casts have been found. The granular and hyaline constitute the type of cast that is met with and sometimes the condition of the latter is so hyaline as to call for the closest attention to perceive them. The property of not taking the stain like other casts adds to the difficulty of detection.

The albuminuria now being referred to is not ordinarily attended with the presence of much albumin. This may be looked upon as one of the features of the condition. I have alluded to the fact that much variation occurs in the period at which albumin may become discoverable. I shall later on discuss the question of the cause of the albuminuria and will simply say here that I consider it is attributable to the toxic influence of the sugar which is traversing the system. With this as the source of the condition, there should be no albuminuria when the urine is maintained in a sugar-free state and as far as my experience has gone this conclusion has been found to hold good. With a sugar-free state of urine there is nothing indeed existing within the system connected with diabetes to give rise to damage of any kind. The subjoined is a good case bearing out this point.

CASE 3.—The patient was a man whom I saw for the first time on Jan. 9th, 1888, that is, more than 15 years ago. He was then 38 years of age. Five months previously sugar had been found in his urine and he had been already put upon a restricted diet before coming to me. For a short time a small amount of sugar continued to be passed but this afterwards ceased. The patient has remained in occasional touch with me up to the present year and I have thus been afforded an opportunity of persistently watching his progress. His urine remained free from, or with only a trace

of, sugar till 1898, when a small amount, from 7 to 8 per 1000, was found. This afterwards disappeared. The urine, I note, was free from sugar in 1900. In 1902 a small amount was present and at the last interview, on June 8th, 1903, a little, but less than at the previous examination, was discovered. The restricted diet has been throughout studiously and in a most determined way adhered to. No albumin has been at any time detected and no bodily appearance is presented of the existence of diabetes.

Looking upon the toxicity of the sugar traversing the system as the prime factor at the bottom of the albuminuria, it should follow that more or less relationship between the two should be traceable, and such, from a broad point of view, it may be said, is found to be the case. At the same time, however, there is sufficient diversity in particular instances to show that there must be some other factor playing a part in connexion with the matter and it may be presumed that the constitutional predisposition, as in other circumstances of an allied nature, contributes a share in the determination of the result. We know that predisposition is capable of exerting a marked influence in connexion with disease, and it is conceivable that with the sugar in the system acting as the prime cause a modifying influence may be exerted upon the result by the constitutional disposition existing. The following cases illustrate the amount of diversity that may be met with.

Although not usual it may happen that albumin soon shows itself after diabetes has set in. Much as regards this depends upon the character of the case with respect to severity. In a case (a man, aged 26 years) which had set in sharply and suddenly two weeks previously and which was attended with very acute symptoms, the urine, besides being highly charged with sugar and giving a reaction with the ferric-chloride test, contained a trace of albumin. In a female patient, 35 years of age, after the existence of diabetes in an uncontrolled and severe form for six months, traces of albumin with hyaline casts were found in addition to diacetic acid and the sugar. In a boy, aged 13 years, after diabetes had existed acutely for nine months, the urine contained traces of albumin accompanied with granular casts. The acetone series of products were present in large amount in association with the sugar. In a young man, aged 23 years, when first seen by me a year and nine months after the onset of the disease in an acute form, the urine, besides sugar and the acetone series, contained a faint trace of albumin and revealed the presence of hyaline and granular casts. In another case, that of a woman, aged 43 years, when I first saw her on April 8th, 1903, the urine to begin with was free from albumin but contained a large quantity of sugar. Diacetic acid and acetone were also present. From the history given her diabetes had presumably existed about nine months. The patient possessed an anxious temperament and notwithstanding some improvement at first she failed afterwards to make satisfactory progress. Up to August the urine was free from albumin but in October it contained a trace accompanied with granular and hyaline casts.

In the chronic class of case the diabetic condition may run on for a long time before albumin appears, if it does so at all. Much depends upon the extent to which the sugar is kept down and if not kept within moderate bounds sooner or later albumin may be expected to appear. When a case is persistently and pretty closely watched it is often to be noted that when albumin has commenced to show itself it is found for awhile to be at times discoverable and at other times not, before it becomes continuously present. The following cases may be cited to show the kind of course that may be witnessed to be taken.

CASE 4.—The patient was a woman who was 64 years old when first seen by me. She had been the subject of diabetes for ten years. At first she made satisfactory progress and there was then no albumin to be found in her urine. Afterwards she failed to keep the sugar satisfactorily under and in a little over two years' time albumin showed itself. After being for awhile sometimes found and sometimes not it became persistently present in small amount. A brother of this patient has also been under my care for diabetes. I first saw him in May, 1894, at which time he was 64 years of age. His disease has been fairly kept under control and his urine had not, up to May, 1903, given any indication of the presence of albumin.

CASE 5.—The patient, a man, was first seen by me on Sept. 29th, 1885. He was then 48 years of age. His disease was of recent and mild onset and for a long time there was no difficulty in keeping the urine free from sugar by moderately careful attention to diet. He even regained carbohydrate assimilative power sufficient to enable him to take as freely of ordinary bread as he desired without passing sugar. Later a retrogression occurred and a reduction of the amount of bread was required to prevent the appearance of sugar in the urine. This reduction was not always carried out and sugar became more or less constantly present in the urine. In these circumstances the decline of assimilative power advanced and in the course of time the urine always contained sugar, and sometimes a large quantity when much dietetic deviation, as happened now and then, occurred. In this way matters proceeded till 1899, 14 years after the patient's first visit to me, when a little albumin became discoverable in the urine. In 1900 diacetic acid became also present and at the last interview, in October, 1902, I note that besides the sugar a trace of albumin, diacetic acid, and acetone are recorded as having been found.

CASE 6.—This patient was a woman, aged 57 years at the time of the first interview on Dec. 24th, 1887. Diabetes had existed for one year and the urine contained a large amount of sugar but was free from albumin. The sugar quickly fell under appropriate dieting and was for a time absent. This condition failed to be afterwards maintained and a fluctuating state, with the presence sometimes of a very large amount of sugar, ran on. Previously to 1899 there was only an occasional record of a trace of albumin but after that time albumin was persistently found and in somewhat larger quantity. The last entry is for Dec. 9th, 1902. Granular casts had then made their appearance.

CASE 7.—This patient was a woman who was 37 years of age when I first saw her on June 13th, 1891. She presented a family history of diabetes and from her personal history she had herself probably been the subject of diabetes in a mild form for about six years. She was not on a properly restricted diet and her urine contained a considerable quantity of sugar. It also contained a slight trace of albumin. The sugar fell and I observe from the entry in December, 1891, that there was then none present. I likewise notice that upon no occasion after the first till 1896 was albumin found and then a sharp increase of the diabetic state had set in. From this time onwards albumin was invariably discovered and in the entry for the last interview, in June, 1903, it is mentioned that hyaline and granular casts were recognisable in the centrifuged urine. A point to be noted in connexion with the case is that the acetone series of products had not as yet become present.

CASE 8.—The patient was a boy who was 15 years old when he first fell under my observation in 1892. His diabetes was of about six months' standing and the case was a severe one. Up to 1894 nothing specially out of the usual course was noticeable except perhaps a less active advance of the disease than is general at the patient's age. The urine was then free from albumin but upon a few occasions previously traces were noted as having been found. In 1895 the patient was still living but in a very weak state. The urine at this time contained traces of albumin in conjunction with the sugar which was only moderate in amount. I now lost sight of the patient till 1901, when I received a letter from Dr. Bond of Havant informing me that the patient had been for some time under his care and that he was still living, though reduced to an extreme state of emaciation and weakness. His diabetes had lately entirely disappeared and the fact was brought to light in an interesting and peculiar way. In the summer of 1900, through atony of the bladder, it was necessary to have recourse to catheterism and subsequently to continue it. In the course of time the urine acquired an effervescent character like that of ginger-beer. Toruloid cells had reached the interior of the bladder and these acting upon the sugar contained in the urine descending from the kidney led to the occurrence of alcoholic fermentation. I have upon a few occasions in the course of my experience come across this phenomenon, and when once the process is set up it continues whilst the urine remains saccharine, or unless an agent having the power of arresting fermentation like, for instance, the sodium salicylate be administered. A spontaneous disappearance of the effervescent character was observed to occur in the patient's case and on examination it was found that the urine had lost its sugar. It was afterwards further found that the sugar was not brought back by a free supply of starchy food. In the presence of these circumstances I was afforded the opportunity of personally examining the urine. A specimen

was sent to me for the purpose and I found it to have a specific gravity of 1006 and to give no reaction of sugar. The ferric-chloride test also gave no reaction, but a trace of albumin, corresponding with what I had noticed before I for awhile lost sight of the patient, was present. After the lapse of a few months I received a notification that death had taken place from general exhaustion.

(To be continued.)

FRACTURE OF THE FIFTH CERVICAL VERTEBRA; RECOVERY.

BY W. E. F. TINLEY, M.D. DURH., M.R.C.S. ENG.,
SURGEON TO THE WHITBY PUBLIC DISPENSARY;
AND
A. R. JONES, M.R.C.S. ENG., L.R.C.P. LOND.

As recoveries from fracture of the spine in the cervical region are rare the following case may be of interest.

On August 2nd, 1902, a man in the employ of the North-Eastern Railway Company fell from a bridge on to a slope beneath, a distance of 40 feet, and then rolled on to the road below. He was carried home on a ladder and dragged up an awkward staircase on it. As the house was three miles from this town some considerable time elapsed before he was seen, when he was found to be in a semi-conscious condition with almost complete loss of power in the legs, some loss of power in the arms, and complaining of pain in the back of the neck. His pupils were contracted. He had no hæmorrhage from the nose, the ears, or the mouth. He was kept quiet and a sleeping draught was administered. In the evening he was conscious but otherwise his condition was unchanged. On the following morning he had retention of urine and a catheter had to be passed; he was then quite conscious and a fuller examination was possible. There was complete paralysis of the lower limbs with loss of the patellar and superficial reflexes. Well-marked priapism was present. The epigastric, cremasteric, and other superficial reflexes were absent. Respiration was difficult owing to paralysis of the intercostals. The right arm lay in the position of abduction; the elbow was flexed and supinated. The fingers and the wrists were motionless on the right side; this was less so on the left but in a day or two the loss of power was as complete on this side as on the right.

On August 6th the patient began to have incontinence of urine in place of retention and as the nursing was not of the best bedsores began to develop in spite of all care. His temperature during the first few days varied from 101° to 102° F. The most tender spot on the spinal column was over the fifth vertebra, where there was an irregularity, but it was not thought advisable to move the head much to make further examination. The only medicinal treatment was the occasional administration of morphia, chloral, and bromide. He was kept perfectly quiet and his head was steadied with sandbags. He took liquid food fairly well but he had difficulty in swallowing and seemed afraid of "choking." His bedsores got much worse and his general condition became critical and a fatal result seemed to be inevitable unless he could be removed to some place where he could obtain good nursing. He was therefore removed to the Whitby Cottage Hospital three miles away. He was placed on a stretcher and through the window on to a scaffolding that was erected and he was carried by hand to Whitby, placed on a water-bed, and with good nursing the bedsores on the back began to improve but one on the right elbow gave much trouble and remained open till he got out of bed. The arms were flexed and could not be straightened owing to their spastic condition and the fingers were obstinately flexed.

For some months his condition remained very much the same but the superficial reflexes returned and he became extremely hypersensitive; his patellar reflexes were very much exaggerated and he developed ankle clonus. He complained of involuntary contractions of his leg muscles which gave him great pain when they came on. He was able to retain his urine until the urinal was brought but could not retain his fæces until the nurse came to him. About March he began voluntarily to move his feet; later he was able to raise his knees and in June to move his arms a little. The faradic current was used for a short time each day and he had massage for the arms, the fingers, and the legs. He was allowed to sit up in bed in July and was put on a mattress instead of the water-bed and shortly afterwards he was lifted into a chair but could not help himself in any way. In August he was able to take a few steps with help and when he left the hospital in September he walked to a cab but with a distinctly spastic gait. The day before he was discharged the following was found to be his condition. He had good movement at the ankles, the knees, and the hips, and greatly increased knee-jerks; the superficial reflexes were normal; the intercostal muscles still lacked power. He had control over his urine but occasional want of control over his motions. He was able to flex and to extend his fingers to some extent but some of the joints were quite ankylosed. The left shoulder and the elbow were capable of movement to almost the normal extent but his right elbow was nearly fixed at a right angle. He could feed himself and hold a paper to read. The nutrition of the body was fair; that of the skin was good. Over the fifth cervical vertebra was a distinct boss of bone as large as a walnut and he carried his head bent forward and stiff.

When heard of recently the patient's condition was very much the same as when he left hospital. His recovery was to a large extent accounted for by the excellent nursing which he received from the nursing staff at the hospital as he was in a dreadful condition when he reached that institution.

Whitby.

A CONFIRMATORY TEST FOR THE PRESENCE OF MECONIC ACID.

BY F. N. WINDSOR, B.A., M.B., B.C. CANTAB., B.SC. VICT.,
CAPTAIN, I.M.S.; OFFICIATING CHEMICAL EXAMINER TO THE GOVERNMENT OF THE PUNJAB.

IN cases of opium poisoning frequently the amount of meconic acid separable from organic matter is so small that it is difficult to determine whether addition of ferric perchloride causes a reddish tint or whether the colour is only yellow. In performing this test a "control" is always carried out with distilled water equal in volume to that of the suspected liquid. This volume is usually about three drachms and test-tubes of small calibre are used to obtain as long a column as possible to look through. Two drops of ferric perchloride solution (B.P.) are added to each tube and the colours are compared. If the reddish tint of the suspected liquid be not distinct then one drachm from the contents of each tube is boiled for 30 seconds. In each case the colour changes to a deep reddish-brown. If to each of the hot solutions four drops of dilute nitric acid (strength 1 in 5) or dilute hydrochloric acid (strength 1 in 7), preferably the former, be added the colour of the ferric meconate solution fades until in 12 hours the solution is colourless while that of the ferric perchloride (in which is a soluble hydroxide) is little or not at all affected.

THE REMOVAL OF KING'S COLLEGE HOSPITAL TO SOUTH LONDON.—The site of 12 acres, at present known as "The Sander's Estate," which has been presented to King's College Hospital in South London, is at the foot of Denmark Hill, close to Camberwell Green, and in close proximity to the three railway stations of Denmark Hill, Loughborough Junction, and Camberwell New Road. In addition to this convenience the main electric tram lines run from Deptford, New Cross, Peckham, right through Camberwell Green, and a further line is now being laid down which will pass the doors of the new hospital, so that the situation is one rapidly and easily accessible from every district of South London. By reason of its position and extent the site affords an opportunity for the building of the most scientifically constructed institution of the kind in England, and it is very earnestly to be hoped that the appeal which is now being made for the £300,000 required to carry out this truly necessary scheme will meet with the hearty support of all generous benefactors throughout the metropolis.

A CASE OF TERATOMA OF THE NECK.

BY F. BOLTON CARTER, M.S., M.D. LOND., F.R.C.S.ENG.,
HOUSE SURGEON TO THE LEICESTER INFIRMARY.

THE following case merits publication on account of its rarity. The child, a female, was born at full term with a large multilocular semi-cystic semi-solid tumour of about the size of a small cocoanut, occupying the whole of the front of the neck (Fig. 1). It caused no trouble during parturition. The child only lived one month, the mass being dissected out after death; the hyoid bone was partly included within its structure and most of the muscles of the front of the neck were inserted and lost in the tumour. Microscopically it was seen to consist of glandular spaces lined with epithelium, cartilage, fibrous and connective tissue (Fig. 2), and was described by Mr. J. H. Targett of the Clinical Research Association as a true teratoma of the neck.

FIG. 1.

Teratoma of the neck.

FIG. 2.

Leicester.

NOTE ON A DICEPHALOUS MONSTER.

BY ALEXANDER M. ELLIOT, M.B., C.M. EDIN.

THE malformation shown in the accompanying illustration may be of interest to some readers of THE LANCET. The child was brought to the civil plague hospital in Karachi where I was at the time medical officer in charge. It was most perfectly formed. The genital organs, not very clearly defined in the illustration, were quite normal (male). I asked the father if he would part with the child, but he would not do so under £50 and eventually the body was buried. From what I can gather it was a foot presentation, the right foot coming first. The child lived for three hours. The mother made a good recovery.

Karachi, India.

REMARKABLE TRANSPOSITION OF THE VISCERA.

BY JOHN C. THOMSON, M.A., M.D. EDIN.

A NEWLY born female child was brought to the public mortuary, Hong-Kong, in 1901 showing a remarkable transposition of the viscera. The heart was displaced to the right side; the stomach and the whole of the intestine, excepting the descending colon, occupied the left pleural cavity; and the diaphragm was intact, giving passage to the descending colon in the usual position of the œsophagus. The lungs, which had not breathed, lay behind

the viscera named and other abdominal organs occupied their usual positions. The child was well-developed. The illustration shows clearly the stomach in the usual position of

Transposition of viscera.

the heart and the coils of intestine higher up in the left side of the chest, while the heart appears as a dark body on the right side above the liver.

Hong-Kong.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum propriae collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus Morb.*, lib. iv., Proœmium.

GREAT NORTHERN CENTRAL HOSPITAL.

A CASE OF ULCERATIVE COLITIS ENDING FATALLY.

(Under the care of Dr. H. W. SYERS.)

A MARRIED woman, aged 29 years, was admitted to the Great Northern Central Hospital on Sept. 6th, 1903. Her health had always been good until about a month before admission. At that time, and without apparent cause, she began to suffer from diarrhœa. There was abdominal pain of a griping character, followed by an imperious necessity to defecate. The motions were at first of a light colour but later became darker, of a chocolate tint. As a rule the bowels had acted as frequently as every two hours. No bright-coloured blood had been observed in the evacuations. As these symptoms continued to trouble the patient she soon began to lose flesh and strength. There had never been any similar illness and the patient had not suffered from enteric fever. She had never been abroad. There was no complaint of cough at any period, either during or before the illness. The family history was quite unimportant. On admission the patient was pale, with a prominent flush on the malar bones; she was very thin and lay in bed on her back with both knees drawn up. The temperature was 100° F., the rate of the pulse was 120, that of respiration being 24. There was no dyspnœa and the pharynx presented a normal appearance. The breath was offensive and the tongue was coated but moist. She complained of eructations, frequent diarrhœa, and of griping pain in the abdomen. The chest was found to be in all respects normal, both as regards the heart and the lungs. The abdomen was distended and tympanitic on percussion. It was generally painful on palpation, the pain not being referred to any special locality. There was no eruption of any kind on the abdomen or elsewhere; the liver and the spleen could not be felt and there was no fluid in the abdominal cavity. No tumour or swelling of any kind could be detected in the cavity of the abdomen. Rectal examination gave a negative result. The motions were of a chocolate colour, were very offensive, and were streaked with bright red blood. The urine was acid and free from albumin and sugar; the specific gravity was 1020. During the first day in hospital the bowels acted five times. On Sept. 10th the abdomen was more distended and was very tender to pressure. The patient complained of severe griping pain. The highest temperature was 101·6°. Sleep was light and broken. Vomiting occurred once only. On the 13th the diarrhœa continued as before, the motions being of a dark-brown colour and quite fluid. No red blood could be detected by the eye but spectroscopic examination revealed the presence of oxyhæmoglobin in the evacuations. The temperature was 102·4°. The patient until this date had taken fluids well but now evinced a repugnancy to all forms of nourishment. The bowels acted five times in the 24 hours. Two days later (the 15th) the temperature was 102·8°. The general condition was less satisfactory, for in spite of treatment the diarrhœa was more frequent, the appetite was very poor, and there was difficulty in getting the patient to take sufficient fluid nourishment. Examination of the abdomen showed less distension and there was less pain on pressure. No mass could be felt. On the 17th the temperature rose to 103·4°. The fever was of a hectic type with an evening rise and a morning fall. The bowels acted ten times in the 24 hours and on one occasion a slough was passed together with a little free blood. There was occasional sickness and the pulse was 144. During the next three days the temperature fell somewhat, being normal on the 20th. At the same time the diarrhœa became rather less frequent. The improvement was, however, of very short duration, for on the 21st the temperature rose to 101·8° and the diarrhœa was again severe, the bowels acting 22 times in the 24 hours. The abdomen continued very tense and was always tender on pressure. Sickness occurred from time to time but was never an urgent symptom. The patient was now in a very debilitated condition though she took food well. On the 26th there was a very marked increase of abdominal pain and tenderness and the expression became somewhat anxious and drawn. Clearly perforation had occurred, for the temperature fell in a few hours from 101·4° to 97° and a distinct fulness, almost a feeling of a mass, could be detected in the right iliac region where the pain and tenderness were most acute. The patient now rapidly lost ground; the teeth became covered with sordes and there was much annoyance from the escape of saliva from the mouth. The temperature did not again rise above 101°; the diarrhœa persisted and the evacuations presented the same character as before. Death ensued from exhaustion on Oct. 4th. That acute general peritonitis had ensued upon the perforation which took place on Sept. 26th was perfectly obvious, though the signs and symptoms of this complication were not marked, as is so often the case when peritonitis supervenes in a patient already worn out with a long and serious illness.

Necropsy.—The post-mortem examination was performed about 24 hours after death. The body was greatly emaciated; rigor mortis was passing off. There was much distension of the abdomen which was tympanitic on percussion. On opening the abdominal cavity a large quantity of very offensive fæcal matter escaped from the wound. The intestines were matted together by acute adhesive peritonitis, which was general and characterised by the presence of flakes of lymph lying on the intestinal coils. A large quantity of fæcal matter was present, the greater portion having found its way into the space between the layers of the great omentum,

the latter being converted into a sac containing much of the intestinal contents. The resulting mass was chiefly situated in the right iliac and pubic regions and clearly explained the sensation of fulness to touch, to which reference has already been made in the history of the illness. On separating the coils of intestine it was found that a perforation had occurred of the size of a shilling, the opening being situated in the ascending colon immediately adjacent to the cæcum. The whole of the large intestine was greatly distended with gas, filling the lower portion of the abdominal cavity. The small intestines were in a normal condition save for the presence of slight catarrh, the whole of the abnormal appearances being practically limited to the large bowel. On opening the latter it was found that the whole of the internal surface from the cæcum to the rectum was in a very marked condition of ulceration. Indeed, the mucous membrane was to all intents and purposes destroyed, for it was merely represented by shreds adhering to the surface here and there, these fragments being situated between enormous areas from which the mucous membrane had disappeared altogether, except that in places small fragments still adhered to it in the form of sloughs. The whole surface of the large intestine was of a greyish-black colour. The ulceration did not apparently involve the muscular coat except at the point where perforation had occurred. It may be said, in short, that the whole mucous membrane of the colon was replaced by a vast ulceration, hardly a square inch of healthy membrane being left. The other organs, both abdominal and thoracic, were healthy.

Remarks by Dr. SYERS.—This case is clearly one of those instances of ulcerative colitis which are met with at long intervals and which are by no means easy of explanation as regards their remote and immediate cause. Here we have a woman who had never been out of the country, whose health had always been good, and who without any obvious cause began to suffer from looseness of the bowels of no particular severity, but in whom nevertheless the symptoms presented became rapidly worse and in spite of all treatment in about two months led to a fatal termination. In this instance the most searching inquiry failed to elicit any reason why the patient should have been attacked; there was nothing in her mode of life or surroundings to suggest any definite cause for the malady. It is, of course, very easy to attribute such a case to the ravages of the bacterium coli, but it is scarcely necessary to point out that if the malady were due to the assault of this micro-organism there can be no reason why the disease should not be extremely common, whereas it is by no means frequently met with, being indeed one of the rare intestinal lesions. It is impossible to explain the reason of the occurrence of the malady in this patient and attempts to solve the riddle are merely guesses at truth. Practically every kind of treatment likely to be of use in controlling the disease was employed and one and all failed completely. The ordinary astringents, with bismuth and opium, failed to exert any influence upon the constant diarrhœa; the only drug which had the least effect was nitrate of silver. This was given by the mouth and also injected per rectum. A trifling alleviation followed the administration of the remedy but in no long time even this slightly favourable effect was lost. A few days before death it was perfectly obvious that perforation had occurred, for there was marked increase of abdominal pain and tenderness at the same time that a distinct swelling appeared in the right iliac region. This swelling was irregular in shape and somewhat indefinite in outline; it was clearly due to the extravasation of the contents of the large intestine found post mortem. Although it was perfectly certain that perforation had occurred the question of the necessity of laparotomy did not of course arise, as no good result could have been anticipated from surgical intervention. The post-mortem findings entirely confirmed the accuracy of this view of the matter. It must be admitted that in this malady, which certainly deserves to be classified as a separate and distinct affection with well-defined symptoms and morbid appearances, no kind of treatment is of any avail and it must unfortunately be regarded as an inevitably fatal disease. Luckily such cases are distinctly uncommon and on this account only it is important that every well-observed instance in which a post mortem examination has been made should be put on record. To Mr. G. A. Upcott Gill and to Mr. A. de Morgan, house physicians, I return my thanks, being indebted to them for the notes of the case.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

50 Consecutive Cases of Perforated Gastric and Duodenal Ulcer treated by Laparotomy.

A MEETING of this society was held on Nov. 24th, Mr. ALFRED WILLETT, the President, being in the chair.

Mr. T. CRISP ENGLISH read a paper based upon 50 consecutive cases of Perforated Gastric and Duodenal Ulcer treated by Laparotomy at St. George's Hospital, the majority of which he had had the opportunity of observing and taking notes upon. The value of hospital statistics was referred to. Acute perforations only were dealt with; of these, 42 occurred in gastric ulcers, 22 of the patients recovering; and eight in duodenal ulcers, with two recoveries. The question of premonitory symptoms was dealt with. These were found to occur in 20 per cent of the cases and conclusions were drawn from an analysis of these cases. The occurrence of a "quiescent period" after the primary collapse was discussed and illustrative cases were quoted. The frequency of vomiting, the condition of the hepatic dulness, and the situations of the perforation were next referred to. The incidence of complications after operation was analysed. Complications occurred in 13 of the 24 successful cases and in eight of the fatal cases which survived the first 24 hours after operation. Parotitis, pleurisy, thrombosis, hæmatemesis, and other conditions were referred to. Such cases were quoted presenting the symptoms and signs of perforation which was proved by laparotomy not to have occurred. Various details in the operation were referred to. The increasing tendency to dispense with drainage was mentioned. In order to ascertain the after-condition of the patients 17 of the 24 successful cases had been followed up. The results of this investigation were given: in 12 cases there had been no return of gastric symptoms, four had had slight dyspepsia readily amenable to medical treatment, and one was troubled with symptoms of extensive peritoneal adhesions.

Mr. G. R. TURNER said that seven of the cases referred to in Mr. English's paper had been under his care. He had used drainage in all of these cases and he had drained the kidney region, Douglas's pouch, and also in some cases the seat of the perforation. He considered that it had been beneficial in all his cases. Two of the seven cases had died; the first was an almost hopeless case at the time of the operation and died shortly after the operation was completed. The second had on admission acute peritonitis and that case also died shortly after operation. The five cases in which recovery occurred were females and in two of them thrombosis of the veins of the left leg had taken place. He always stitched up the ulcer as soon as possible so as to prevent any further extravasation of stomach contents into the peritoneal cavity and after that was done he put in the Lembert's sutures and tucked in the ulcer. In one case he had opened the abdomen and found absolutely nothing abnormal. This was a case of pure neurosis simulating organic disease. In another case of ruptured œsophagus the symptoms exactly resembled those which occurred in perforation of a gastric ulcer.

Mr. J. WARRINGTON HAWARD said that hospital statistics were of special value as they were unselected and included the unsuccessful as well as the successful cases. He thought that, as a rule, the symptoms of perforation were sudden in onset and they came on more frequently after food than after exertion. In cases, however, in which adhesions were present it was not unusual for perforation of a gastric ulcer to occur after exertion. The situation of the pain gave no hint as to the point where the perforation had taken place, but if the case was seen before perforation had occurred then the superficial tenderness was of diagnostic value. He thought that the frequency of the pulse-rate was of the greatest diagnostic significance and if the pulse-rate rapidly rose in a case it was important that an operation should be performed. He considered that the pleurisy which so frequently occurred was due to the passage of septic material by means of the lymphatics passing through the diaphragm to the pleura. He considered that drainage was

advisable in those cases in which a considerable period had elapsed after the perforation had taken place.

Dr. J. F. H. BROADBENT mentioned two cases of traumatic rupture of the duodenum. The first was that of a child who fell across a chair. No immediate symptoms were produced. Shortly after this she took a glass of milk and had severe pain in the abdomen with obvious symptoms of perforation. The child died and it was found that there was a rupture of the third part of the duodenum. The second case was that of a man across whose abdomen a ladder fell. There were no immediate symptoms but on the following day the patient complained of pain in the right iliac fossa. The abdomen was opened in this region but no perforation could be found. A week later he suddenly had signs of acute peritonitis and died. It was found that the duodenum had been ruptured posteriorly and that an abscess had formed behind the peritoneum. The abscess had ruptured and given rise to the acute symptoms. He thought that duodenal ulcers usually occurred in men in good health and that the "quiescent period" was likely to be more marked than in cases of perforation of gastric ulcer.

Dr. H. S. FRENCH asked what was the cause of the parotitis in these cases and whether it had been less frequent since attention had been paid to the mouth. In dealing with the diagnosis of the perforation no mention had been made of locomotor ataxia. He referred to a case of locomotor ataxia in which perforation of a gastric ulcer had occurred. He mentioned cases of dissecting aneurysm and thrombosis of the superior vena cava which had simulated perforation of a gastric ulcer. He doubted whether the after-results of operation were always so favourable as those mentioned in the paper. In one case a man had suffered from severe pain after operation for nearly two years.

Mr. C. R. B. KEETLEY said that since 1899 he had operated on nine cases of perforated gastric ulcer; six patients had recovered and three had died; the six who recovered had been operated on within 30 hours, while the three who died were not operated on for three or four days after the perforation. In one of the fatal cases a second perforation was found and in another profuse hæmorrhage occurred and the patient died in a few hours. With regard to the advisability of performing a gastro-enterostomy he did not think that it was needed in most cases but it might have prevented the fatal result which had occurred in his second case from hæmorrhage.

Dr. G NEWTON PITT said that he had seen several cases of perforation of gastric ulcer operated on and thought that irrigation of the peritoneum was unnecessary; much, however, depended on the virulence of the fluid in the peritoneum. He thought that the "quiescent period" was dependent upon the fact that owing to absence of movement of the diaphragm the pumping action in the lymphatics was not maintained and the toxic substances from the abdominal cavity were not conveyed into the general circulation. He suggested that the examination of the blood might be of some value in distinguishing the cases of pure neurosis from those of actual perforation.

Dr. S. VERE PEARSON referred to the frequency of diminution of liver dulness which he had found to be present in about one-third of all cases admitted for hæmatemesis. The condition could not be explained by general distension of the intestine nor was it due to a dilated stomach. He thought the most likely explanation was that it was due to a dilated colon, though even this explanation was hardly adequate.

Mr. H. J. PATERSON said that he was adverse to irrigation and even mopping of the peritoneum. He was in favour of using simple gauze drainage. He believed parotitis to be due to the dry condition of the mouth and since he had used an antiseptic mouth wash he had not seen that complication occur. Three reasons had been given by Mr. English for not performing a gastro-enterostomy: (1) that it increased the length of the operation; (2) that it increased the risk; and (3) that it was unnecessary. He, however, could not agree with these reasons and considered that gastro-enterostomy was of advantage, first, because it gave the stomach physiological rest; secondly, because it facilitated the healing of other ulcers, if present, in the stomach; and thirdly, because it was possible to feed the patient earlier.

Mr. T. CLINTON DENT said that there were two points with which he would deal: first, he was of the opinion that the less irrigation was used the better; and secondly, he considered that gastro-enterostomy was unnecessary and did not fulfil the objects stated by the last speaker. He considered it of special importance to feed patients at an early period after the perforated gastric ulcer had been closed.

Mr. ENGLISH replied.

MEDICAL SOCIETY OF LONDON.

The Treatment of Cardiac Failure.

A MEETING of this society was held on Nov. 23rd, Dr. F. DE HAVILLAND HALL, the President, being in the chair.

Sir RICHARD DOUGLAS POWELL opened a discussion on the Action of Medicinal and other Means of Treatment in Cardiac Failure. He said that he would limit his remarks to cases of acute heart failure and would only discuss the mechanism and treatment of three or four of the more important kinds. He gave an instance of sudden death in aortic regurgitant disease, pointing out that the death in this case arose from syncopal failure of circulation in the brain due to failure of the heart during the diastolic period. In a second, an anginoid, variety of cardiac failure in aortic regurgitant disease death was threatened during an attack of vaso-motor angina. But in this condition the mechanism was different, the peripheral vessels were contracted not dilated, and although the strain upon the ventricle unsupported by the aortic valves was very great, still the blood was retained in the arterial capillaries and nerve centres and the syncopal failure of the heart might be delayed until remedies could be applied. These remedies were of the class of nitrites to release arterial spasm, with strychnine and perhaps morphia to support the heart and to relieve pain. Further attacks were to be prevented by looking to the visceral causes of vaso-motor storms and correcting them. Another variety of acute and fatal heart failure was instanced in a man with mitral stenosis who after the relief of urgent symptoms by rest and treatment had gradually been fed up to the point of plethora and one morning after a large breakfast he fell dead. In this case the venous flood had been rising against the narrowed isthmus at the mitral valve and finally the right heart became acutely over-distended and failed. In such a case a prompt bleeding might have saved the patient but the disaster might have been avoided by a spare dietary and the use of laxatives. The adverse conditions affecting the heart in severe cases of pneumonia were somewhat similar although more complex; a weakened heart, an impaired lung function, and an actual impediment in the lungs from extensive stasis of capillaries were the factors. The oncoming over-distension of the right heart could be noted in its increased dimensions and the loud second sound, coupled with the limited output as recognised in the small quick pulse at the wrist, which failed during each inspiratory period. Venous stagnation was further witnessed in the fulness of the liver and the albuminous urine. Sir Douglas Powell urged the importance of carefully guarding against over-feeding patients in this condition. The chief preventives against heart failure in pneumonia were careful feeding, occasional laxatives, strychnine, and oxygen. With regard to strychnine he had not the slightest doubt, from clinical experience, that it was a direct and powerful heart stimulant, although it was maintained by pharmacologists that it raised blood pressure by its effects in contracting the arterioles, not by its direct effect upon the heart. If this were so it would be of doubtful value in pneumonia, whereas he thought all physicians would agree as to its usefulness. The main value of oxygen inhalation was as a cardiac stimulant and it should be administered at stated times. The blood charged with free oxygen passed directly to the heart, refreshed its muscular power, and prevented the accumulation of waste products. Digitalis was chiefly valuable in cases in which the heart rhythm became disordered. Caffein might supplement or replace strychnine in some cases. In cases of heart failure in Addison's disease, in hæmorrhage, and in collapse after abdominal injury or operation the blood pressure became very low and there was a tendency to transfer the blood from the arteries into the veins. To combat this tendency ergot, suprarenal extract, and saline injections were of value according to the cases, the object being to raise arterial tension and to retain more blood in the arteries and the nervous centres. The heart would still require support by strychnine, digitalis being in most cases contraindicated. The merits of rectal, subcutaneous, and intravenous injections were touched upon.

Opium was referred to as a most valuable aid to other remedies in all cases of what might be described as cardiac shock or cardiac pain, in cases of painful as apart from syncopal angina, and in irregular, tumultuous or inhibited action of the heart attendant, for instance, upon the initial shock of extensive pleurisy or acute pericarditis. Again in that peculiar condition of cardiac agitation attended by restless dyspnœa and air hunger that often preceded the appearance of dropsy morphia subcutaneously was often the only remedy that afforded relief.

Sir WILLIAM BROADBENT said that he had followed with interest the different causes of cardiac failure alluded to by Sir Douglas Powell. Cardiac dilatation might also be secondary to inherent decay of the heart and to diseased conditions of the aorta, causes which were perhaps some of the most common they met with. Genuine cases of angina might arise from disease of the coronary arteries. As regards sudden death in mitral stenosis, it might not only be caused by venous congestion but it might also be due to the mechanical distension of the stomach pressing directly on the right side of the heart as in a case which he mentioned. Bleeding was an admirable remedy in some cases of pneumonia. Strychnine was a most valuable remedy in cardiac failure. Five grains of calomel were a prompt and efficacious remedy in many cases.

Sir LAUDER BRUNTON, referring to sudden death in mitral stenosis, thought that it might very often be due to mechanical effects produced by the stomach. This was the explanation of the death of people by making them drink large quantities of bullock's blood in the Middle Ages. Cardiac distress very often arose from distension of the stomach by wind or other causes. He believed the heart might actually be tilted upwards upon itself. It was very important to avoid fermentative substances in the diet and to avoid fermentation by the administration of carbolic acid and other remedies. He had seen great advantage in occasional bleeding in pneumonia when the right side of the heart was distended. By pharmacological experiment he had found that strychnine was a direct stimulant of the cardiac ganglia; thus he concurred with what previous speakers had said. Reference was made to a case of pneumonia in which the continuous administration of oxygen was very successful. Rest in bed was, in his belief, the most efficacious of all methods of treatment of cardiac failure.

Dr. JOHN MITCHELL BRUCE, referring to acute failure of the heart in mitral stenosis, advocated venesection, especially when hæmoptysis appeared, which was nature's indication for this plan, or failing this 12 leeches might be applied along the sternum. In both acute pneumonia and chronic valvular disease the cardiac embarrassment might be due to an overloaded stomach when emesis and calomel were the best remedies. In pneumonia far too much food was generally given. He advocated the continuous rather than the intermittent administration of oxygen in pneumonia and it should be started before urgent symptoms set in. It might be given through a tube opening just under the patient's chin. Digitalis was an invaluable drug in the cardiac failure of chronic valvular disease and in Bright's disease. It should be given in large doses (from ten to 15 minims of the tincture every four hours) and the dose might be increased if moderate doses failed or produced a fluttering pulse. The daily amount of urine passed should always be gauged; it was the most certain measure of the efficacy of the drug and of the progress of a case of chronic valvular disease.

Mr. A. E. J. BARKER, speaking of the cardiac failure following operation, said it might be immediate, as in shock, or remote, occurring a day or two after the operation. The remote variety might be due to toxæmia. In the cardiac failure of shock the blood pressure was very low and this low pressure could be increased by handling the abdominal organs roughly. The infusion of normal saline solution was useful. Glucose (up to 5 per cent.) might be added. Adrenalin might be given subcutaneously.

Mr. A. W. MAYO ROBSON thought a great deal could be done to prevent shock and cardiac failure by measures adopted prior to operation—namely, by preserving the warmth of the patient, by injecting a pint of normal saline solution into the bowel, and by the hypodermic injection of ten minims of strychnine solution. He had used these measures several hundred times with success. For the cardiac failure after operation he advocated oxygen and the use of saline injections intravenously and per rectum. Three or four pints might be given during and after an operation. He was satisfied that in certain cases acute distension of the stomach might cause all the symptoms of acute cardiac failure.

Sir DOUGLAS POWELL replied.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The Relation of Mental Symptoms to Bodily Disease.—The Mental and Moral Effects of the South African War, 1899–1902, on the British People.—Fragilitas Ossium in the Insane.

A GENERAL meeting of this association was held at the rooms of the Medical Society of London, 11, Chandos street, Cavendish-square, W., on Nov. 18th, Dr. ERNEST W. WHITE, the President, being in the chair.

Dr. NATHAN RAW read a paper entitled "The Relation of Mental Symptoms to Bodily Disease, with special reference to the Treatment of Temporary Forms of Insanity outside Lunatic Asylums." He said that his object was to direct attention to the great frequency with which mental symptoms were developed in an attack of bodily illness and to the unsatisfactory system obtaining in this country of treating and dealing with persons suffering from temporary mental disease. It was not his purpose to speak of active organic insanity for which the asylum was the proper place, but of those persons who in the course of such diseases as pneumonia, typhoid fever, Bright's disease, toxic poisoning (as by belladonna), puerperal septicæmia, exophthalmic goitre, gout, and myxœdema required special provision in the shape of nursing and treatment without having recourse to certification and without placing them among those who could be correctly described as of unsound mind. His position could be summed up by such a case as the following. A man without means became temporarily insane during an illness and attempted suicide. His friends could not afford to pay for his treatment, therefore he was taken to the insane wards of a workhouse infirmary. The symptoms passed away but the law said that no person should be detained in the insane wards of a workhouse for more than for 14 days; hence the man would be duly certified by a magistrate as insane and removed to an asylum, which was a hardship. He would like to see established in every town, preferably by the municipality, a reception hospital for mental diseases, from which, if recovery did not ensue in six weeks, cases should be drafted to the asylums proper. He could say from his own experience that many people were now sent to asylums who, if they had been accommodated in such reception houses, would have recovered and—which was very important and not a matter of sentiment—would have been spared the stigma of lunacy, a stigma which in many cases prevented a man subsequently obtaining employment. He admitted that by such a provision the "recovery-rate" of asylums would be much diminished but in the face of the great benefit to the community he could not imagine any alienist offering objection on that account. The position was somewhat acute in Lancashire where, although there were five county asylums averaging over 2000 patients, it was almost impossible to find accommodation for all the lunatics and practically all the admissions into the asylums were made from the workhouses. During the last six years under Section 20 of the Lunacy Act there had been admitted into Mill-road Infirmary, Liverpool, 3934 lunatics. Of that number 1003 were suffering from delirium tremens and other results of alcohol, so that 2931 suffered from other causes of insanity. Of the 3934 1982 were transferred to the county asylums and 1605 recovered within the scheduled time allowed by law, while the remaining 347 died. In Glasgow the reception-house method had worked satisfactorily for some months and the London County Council was empowered to provide four reception houses on the same lines. Dr. Raw then proceeded to amplify his contention by relating instances of the several diseases associated with temporary mental aberration, paying special attention to the manifestations of uræmia and chorea. He objected to the term "insane" being applied to such cases and invited an expression of opinion from experts in the association.—Dr. G. H. SAVAGE said that the paper should be considered from two aspects—first, the practical one as to patients being first received in reception houses, and, secondly, the forms of mental disorder which should be sent to them. He was in accord with the desire that patients suffering from temporary mental disease should not be treated as, or termed, insane cases and if the dictionary could be

purged of such terms as "lunatic" and "asylum" much good would result. The homes, asylums, or hospitals for the insane were admirably managed and if patients could be sent to them without the formality of certification, and not only sent but detained, it would be a most desirable thing. The real difficulty was that a patient was willing to go as a voluntary boarder but was not willing to stay there, and if he were subsequently certified it was thought that a mean advantage had been taken of him. But if he came out harm followed to all. Perhaps some of the asylums could be utilised as reception houses but all would probably agree that some expansion of the law was required and he thought that the liberty of the medical man should be considerably increased.—Dr. A. R. URQUHART said that Dr. Raw's early asylum experience, followed by a remarkably large clinical one, eminently fitted him to bring forward such a subject. The question of receiving houses for the insane was a very old one and unnecessary difficulties had been made with regard to it. It was 30 years ago that he saw the receiving house of the late Dr. Norton Manning at Sydney and in that remote colony at that date was a similar institution to those now being striven for in England, and it was under the care of the physician responsible for the treatment of the insane in the neighbouring asylums of the colony. He deprecated the idea that a general physician was competent to take charge of such receiving houses.—Dr. J. WIGLESWORTH said he had hoped that Dr. Raw would have given his views on the pathology of some of the conditions which he had described. He did not think that there were so many cases of bodily disease associated with insanity as Dr. Raw made out. The most suitable cases for reception houses were acute alcoholics but he did not agree that they should not be regarded as insane; they were as insane as subjects of any other form of paranoia. He urged that the town was quite the wrong place in which to treat such cases. The more restful and delightful surroundings of the country were a great help to recovery. The period of detention of cases sent to receiving houses he thought should be nearer a fortnight than six weeks.—Dr. ROBERT JONES pointed out that the period set by the London County Council was six weeks but it could be extended more or less indefinitely by further periods of six weeks. He thought that Dr. Raw had fully established the necessity for such reception houses and he entirely supported Dr. Wiglesworth's contention that such houses should at any rate be suburban. He did not think that an asylum was the proper place to send alcoholics to.—Dr. W. LLOYD ANDRIEZEN would have liked to hear the conditions mentioned by Dr. Raw classified and he (Dr. Andriezen) outlined the scheme on which he thought such classification should be based. He also protested against the old metaphysical division of ailments of the mind from those of the body and emphasised the frequent presence of a hereditary neurosis in cases where bodily disease caused mental symptoms.—Dr. W. CROCHLEY S. CLAPHAM and Dr. F. R. P. TAYLOR continued the discussion, the latter referring to the reception hospital attached to the East Sussex County Asylum which he thought was as near that which Dr. Raw advocated as anything could well be.—Dr. BOWER also referred to the same institution and to the large part taken in its establishment by Mr. H. F. Hayes Newington.—The PRESIDENT approved of the suggestion to establish reception houses for temporary cases but urged that every care should be taken that the presiding genius of such institutions would be a properly trained psychologist.

Dr. R. S. STEWART read a paper entitled "The Mental and Moral Effects of the South African War, 1899–1902, on the British People," in which he showed by summaries of criminal statistics that the nation as a whole was much more self-possessed during the dark days of the war—the end of 1899—while since then a reaction had been apparent. The paper was discussed by the PRESIDENT, Dr. JONES, Mr. HAYES NEWINGTON, and Dr. ANDRIEZEN.

Dr. W. MAULE SMITH showed a most interesting series of slides illustrating the existence of Fragilitas Ossium in the Insane, often of a very extreme degree.

The members afterwards dined at the Café Monico.

LIVERPOOL MEDICAL INSTITUTION.

Exhibition of Case and Specimen.—Paralysis of the Third Nerve.—Pneumonia.

A MEETING of this society was held on Nov. 19th, Mr. RUSHTON PARKER, the President, being in the chair.

Dr. W. ALEXANDER showed a patient from whom he had removed the Breast some time before. On admission operative interference was apparently hopeless as the tumour was adherent to the subjacent structures, ulcerating, and very foul. After the free application of creolin to the growth and the administration of thyroid tablets the tumour lost its hold on the deep tissues and was removed by two operations. The microscope showed the growth to be adeno-carcinoma. The question arose whether the thyroid tablets or some toxin from the septic condition was the factor in the change.—Mr. F. T. PAUL and the PRESIDENT thought that the improvement was brought about by toxic products derived from the septic infection.—Dr. A. S. F. GRÜNBAUM also spoke.

Dr. ALEXANDER also showed a Double Uterus, each part being only adherent at the cervix. Each uterus had a distinct os and canal, one Fallopian tube, and one ovary; the formation of the organs was evidently due to absence of coalescence of Müller's ducts. The organ was removed for adeno-carcinoma of the cervix; the posterior uterus was thought to be a fibroid. The patient was a 3-para. During the first two pregnancies she had amenorrhœa and in the third she menstruated till within two days of the birth of the child.—Dr. H. BRIGGS spoke and Dr. ALEXANDER replied.

Mr. R. J. HAMILTON read a short paper on Paralysis of the (left) Third Nerve with Blindness on the same side due to a retrobulbar neuritis. After a discussion of the possible etiology Mr. Hamilton held it to be due to periostitis of the sphenoid, probably rheumatic in nature. The patient, a girl, aged 20 years, was shown.—Mr. RICHARD WILLIAMS had seen two or three similar cases in which he had diagnosed periostitis at the entrance into the orbit. The symptoms had subsided under the use of mercury and iodide of potassium alternately. The prognosis depended upon the rapidity with which the patient was brought under the influence of mercury.—Dr. K. A. GROSSMANN thought that the etiology was generally obscure unless traumatic. Prognosis was even more uncertain; the patient, whom he had exhibited on March 19th of this year, though mercury and iodide had been freely given, still showed paralysis when seen a fortnight ago.—Mr. HAMILTON, in reply, said that his patient was improving under iodide and salicylate.

Dr. JOHN HAY read a paper on Pneumonia. It was based on the observation and notes of 150 cases. Of these 150 cases 21 were admitted moribund or died within 24 hours of admission. After eliminating these there was a death-rate of 31 per cent. Alcoholic excess was much in evidence. It was admitted in 65 of the 150 cases and of these 65 37 died. After discussing certain physical signs and some points in the physical examination he dealt with the question of cardiac strain and the effect of the onset of hepatisation, the toxæmia, the temperature, delirium and struggling on the heart, and he emphasised the far greater importance of the condition of the myocardium in the prognosis than the existence of valvular disease and brought forward numerous cases in support of this view. The signs of cardiac failure were then discussed, especial emphasis being laid on the importance of careful definition of the deep cardiac dulness. He pointed out the extreme gravity of the prognosis in cases where an irregularity of the pulse was present before the crisis excepting in the aged or in those cases where there was marked mitral stenosis. The causes and treatment of sleeplessness, delirium with struggling, and flatulent distension of the abdomen were discussed and the indications and contra-indications for the administration of morphia. Dr. Hay was of opinion that the value of alcohol in the treatment of pneumonia was much overrated owing to a misconception of its therapeutic action. It was of use in order to counteract any contraction of the peripheral vessels such as occurred during the initial rigor or as a narcotic, and also during convalescence, but he held that the consensus of scientific opinion was opposed to the view that in its specific action it was a cardiac stimulant. He gave the results of 47 cases which were treated throughout without alcohol as compared with 103 which received it when the orthodox indications for its use arose. The patients in each class were so far as possible of a similar type and yet after eliminating those admitted dying from both classes the mortality in class 1 was 21½ per cent. as compared with 36½ per cent. in class 2; the average age in each class was about 33 years. The action and value of digitalis strychnine, caffeine, and ammonium carbonate were discussed and the treatment by the application of ice-bags to the abdomen was referred to.—Dr. NATHAN RAW would lay great stress upon the severity

of the infection when considering the death-rate under any particular form of treatment. At times the severity was such that practically no treatment was successful; at other times the majority would recover. In an intermediate class much could be done and his practice had been not to spare the use of alcohol when the symptoms appeared to demand it. They must look forward to the discovery of a direct antidote to the pneumonic poison.—Dr. W. CARTER said that there were only two periods in any case of acute pneumonia when he would like to use opium—viz., at the onset and certainly never later than the second or third day if the nervous centres were markedly affected, and at the very end of the disease when the critical fall of temperature was followed by active delirium. In the latter case, though the physical signs were not much altered, the vital relations of the patient were such that a timely dose of opium was of the utmost value.—Mr. ALBERT E. DAVIS said that his routine practice was to give ammonium carbonate and six ounces of brandy per diem. His death-rate was under 10 per cent. in the last 18 years. He deprecated the use of opium in any form at any period of the disease.—Dr. W. B. WARRINGTON, Dr. T. R. BRADSHAW, Dr. T. R. GLYNN, Dr. C. A. HILL, Dr. J. BARR, Dr. GRÜNBAUM, Dr. C. J. MACALISTER, and Dr. J. H. ABRAM also spoke and Dr. HAY replied.

EDINBURGH OBSTETRICAL SOCIETY.

Election of Officers.—Valedictory Address.—Leucocytosis in Pelvic Disease.

A MEETING of this society was held on Nov. 11th, Dr. JAMES RITCHIE, the retiring President, and afterwards Professor A. R. SIMPSON, Vice-President, occupying the chair.

The following members were elected office-bearers for the ensuing session:—President: Dr. N. T. Brewis. Vice-Presidents: Professor A. R. Simpson and Professor J. A. C. Kynoch (Dundee). Treasurer: Dr. William Craig. Secretaries: Dr. William Fordyce and Dr. J. Lamond Lackie. Librarian: Dr. F. W. N. Haultain. Editor of Transactions: Dr. Lamond Lackie. Members of Council: Sir J. Halliday Croom, Dr. Michael Dewar, Dr. G. Matheson Cullen, Dr. J. E. Moorhouse (Stirling), Dr. James Ritchie, Dr. J. W. Ballantyne, Professor R. Jardine (Glasgow), and Dr. W. G. Aitchison Robertson.

The PRESIDENT in his Valedictory Address mentioned that during the last two years the membership had been increased by the addition of 22 Fellows, making 449 ordinary Fellows on the roll, and with honorary and corresponding Fellows a total of 567. He referred to the loss the society had sustained in the death of several of the Fellows and gave a short sketch of some of their lives. The work of the past session was also reviewed and summarised.

Dr. G. SCOTT CARMICHAEL read a paper on Leucocytosis in Pelvic Disease giving the results of examination of the blood made in 180 gynæcological cases and in many cases of pregnancy while studying in Greifswald under Professor Martin. For a complete investigation not only the quantitative change in the leucocytes alone must be taken into account but also the qualitative changes as evidenced by the proportion of the polymorphonuclear leucocytes to other forms or by such a change as is presented by their iodine reaction. For clinical purposes, however, the quantitative change in the leucocytes was sufficient. It could be rapidly ascertained and with few exceptions could be relied upon to betray the chief changes in the blood. The importance of the use of this examination in all cases of inflammation of the pelvic connective tissue could not be over-estimated. To obtain a proper standard it must be remembered that towards the end of pregnancy and during parturition the leucocytes tended to increase steadily, while during the puerperium there was as steady a decrease in all cases unattended by complications or operative interference. Up to 15 000 per cubic millimetre was considered within the range of a normal pregnancy by Zangemeister and Wagner. Dr. Carmichael had not observed any count in his cases to rise above 13,000, the average being 10,000 or 11,000. The leucocyte count was very helpful in deciding the question of the presence of pus in chronic inflammatory pelvic cases with no rise of temperature though the leucocytosis was not so high in these cases as in the acute ones. They must attach great importance to a slight rise in the leucocytes in a chronic case, especially if it was steady and gradual. The presence or absence of pus in tubal affections and also the source of the suppuration could be largely determined by a leucocyte count. Pyosalpinx caused by streptococci might produce a leucocytosis up to 40,000 per cubic millimetre, and the bacillus coli communis also caused a high degree of leucocytosis. Gonorrhœal inflammation caused a moderate degree, at highest up to 15,000; a tuberculous inflammation was lowest on the scale, causing no leucocytosis. In three cases of ectopic gestation there was no increase of the leucocytes, the numbers being respectively 6100, 8200, and 7100. So that this estimation could differentiate the source of the inflammation present. Some considered that malignant tumours produced an increase in the number of leucocytes; inflammatory complications of tumours would do so. In appendicitis a count of 25,000 or over would probably mean suppuration, but a surgeon would fail in his duty if he waited till this number were reached as other signs were of importance. At the commencement of an acute inflammation there might be considerable increase of leucocytes and yet no suppuration; but if after daily consecutive examination the count remained about or above 20,000, or if there was a steady rise towards that number, then the presence of pus might be suspected. In cancer of the cervix with much ulceration there was often considerable leucocytosis and no operation would be advisable until this increase was much diminished by appropriate treatment. After a severe hæmorrhage as in cases of uterine fibroids, there was often considerable leucocytosis.—Professor SIMPSON, Dr. G. L. GULLAND, Dr. D. BERRY HART, and Dr. BALLANTYNE discussed the paper.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 6th, Dr. Seymour Taylor, the President, being in the chair.—Dr. Herbert Tilley showed a case of Chronic Suppuration of the Accessory Nasal Sinuses cured by operation. The patient, an unmarried woman, 41 years of age, had suffered from profuse purulent nasal discharge for about ten years, the condition following upon an attack of enteric fever. For about five years headache had often been so severe as to preclude the performance of her duties, while mental apathy and inability to concentrate her mind upon her work had been a more or less constant symptom. During this time polypi had on several occasions been removed from the nasal cavities without producing any effect on the discharge from the nose. On Jan. 12th of this year Dr. Tilley operated on both frontal sinuses by completely removing the anterior wall, curetting away the polypoid pyogenic membrane, and making a large opening into the nose by way of the fronto-nasal canal. The ethmoidal and sphenoidal cavities were also dealt with at the same time by curettage. On Jan. 28th the maxillary antra were opened through the canine fossa, the diseased contents were curetted away, and the sinus cavity was mopped out with chloride of zinc solution (40 grains to one ounce) and lightly packed with bicyanide gauze. At the end of 24 hours the gauze was removed and not reinserted, the antral cavities being irrigated with warm boric lotion, dried, and left alone. No opening was made from the antra into the nose. The healing process was carefully watched and just before the openings in the canine fossæ closed it could be demonstrated that the antral cavity was practically full of organising granulation tissue. The patient had now been free from any discharge for over seven months, her general health was better than it had been for years, and she had increased 17 pounds in weight. There was practically no scarring over the frontal sinus regions.—The President considered that the chief interest in the case, apart from the extensive and general suppuration of the accessory sinuses, lay in its association with enteric fever and referred to the extremely varied nature of the complications and sequelæ of that disease.—Replying to a question by Mr. G. A. Garry Simpson, Dr. Tilley stated that he did not consider that the suppuration had been started by the typhoid bacillus. Probably the antra were suppurating before the onset of the enteric fever and the low state of health induced by that disease brought about a rapid infection of the other accessory nasal sinuses.—Dr. Tilley also showed a case illustrating an operative procedure for the relief of almost complete adhesion between the soft palate and the posterior pharyngeal wall, the result of tertiary syphilis. The adhesion was so complete that only a small probe could be passed from the oro-pharynx to the naso-pharynx. The

patient, a girl 23 years of age, had been operated on twice previously but re-adhesion had occurred on each occasion. After a preliminary laryngotomy Dr. Tilley completely divided the adhesions between the palate and the pharynx. A strong silver wire was then passed from before backwards through the soft palate close to its junction with the hard palate about half an inch from the middle line. The distal end of the wire was then made to re-pierce the soft palate close to its free margin and from behind forwards, so that a short segment of the wire rested on the posterior surface of the soft palate. The free ends of the wire were then passed from behind forwards one upon each side of the root of an incisor tooth, firm traction was exerted on the palate, and the wires were twisted upon one another and cut off short in front of the tooth. A similar procedure was adopted on the other side of the palate. The wires cut out in about a fortnight and by that time the raw surfaces (corresponding to the previously adherent areas) had become practically covered with epithelium and hence no re-adhesion took place.—Replying to Mr. W. McAdam Eccles, Dr. Tilley stated that he had closed the laryngotomy wound at once. A certain amount of subcutaneous emphysema followed, affecting the right side of the face and the neck, but this disappeared in about a week.—Mr. McAdam Eccles showed a case of Sarcoma of the Os Pubis occurring in a girl, 11 years of age. Four months previously pain in the right leg, chiefly in front of the knee, had been complained of. At that time there was no abdominal swelling. When the swelling appeared operation was advised but declined and the tumour had rapidly increased in size. The patient was fairly well nourished and could stand and walk without discomfort. In the hypogastric region there was a large globular swelling, hard, fixed, and somewhat overlapping the body of the os pubis. Part of the tumour to the left side was softened. The inguinal glands were enlarged. Rectal examination showed that the uterus was displaced backwards and projected against the anterior wall of the rectum. There had been no interference with micturition or defecation and the temperature had remained normal. The tumour was of such a size that operative procedure seemed to be out of the question and Mr. McAdam Eccles was unable to advise treatment by Coley's fluid or serum injection.—Dr. E. Furniss Potter showed a case of Radical Mastoid Operation in which rapid healing took place without skin grafting. The patient was a girl, aged 14 years. Operation was rendered urgent by the supervention of an acute attack of chronic middle-ear disease. The operation was performed with great ease, the outer bony wall of the antrum being much softened. The patient did well until the eighth day when a severe attack of erysipelas lasting for 18 days occurred. Thereafter the patient made a good recovery and two months after the operation healing was complete. Dr. Potter considered this to be an unusually good result and quoted Mr. C. A. Ballance's statement[1] that the average time necessary for complete healing in cases similarly treated is from six to seven months.—Dr. E. A. Saunders showed a case of Rickets with Anæmia and great Enlargement of the Spleen. The patient, a boy aged nine years, had been admitted to hospital five weeks previously complaining of abdominal pain and shortness of breath. The most striking features of the case at that time were an intense anæmia together with very great enlargement of the spleen and, to a less degree, of the liver. The head was large and square with marked bossing of the temporal and parietal regions. There had been no recent illness and the family history showed nothing of importance. On examination of the blood the anæmia was found to be of a simple type, the red corpuscles being 1,780,000 and the white 5000 per cubic millimetre. The hæmoglobin was about 40 per cent. The spleen reached to the middle line well below the umbilicus and the liver could be felt two and a half inches below the costal margin. There were no lymphatic enlargement, no purpura, no hæmorrhages, no œdema, and no rise of temperature. Under a tonic treatment, consisting of arsenic, iron, and cod-liver oil, together with good food the improvement was extremely rapid. The red blood corpuscles had increased to 3,880,000 and the white to 8000 per cubic millimetre and the hæmoglobin had risen to 75 per cent. The anæmia had practically disappeared and both the liver and the spleen had decreased in size.—Mr. L. S. Dudgeon urged the importance of a complete examination of the blood with a differential count of the leucocytes in such cases and referred to the fact that the enlargement of the liver and the spleen might be more apparent than real.—Mr. C. R. B. Keetley showed (1) a case of extensive Contracture after severe Burns; and (2) a case of Carotid Aneurysm in a woman.

[1] THE LANCET, April 11th, 1903, p. 1010.

EPIDEMIOLOGICAL SOCIETY.—A meeting of this society was held on Nov. 20th, Dr. B. A. Whitelegge, the President, being in the chair.—Dr. W. J. Simpson read a paper on the Epidemiology of Plague. After referring to the many unsolved problems as to its etiology and migrations in the past he pointed out that the present epidemic sprang from a centre remote from those of previous outbreaks and that its distribution had been equally dissimilar from theirs. It had everywhere followed maritime trade routes, not passing inland in China save by the great water-ways. Its retrogression from western Europe about the close of the seventeenth century and from its eastern confines 100 years later was due, not to any social changes or sanitary progress, but to the transference of the trade of the East from overland to maritime routes. From the tenth to the sixteenth centuries the products of China and India were carried by caravans through Persia and Syria. The commerce of Europe was wholly in the hands of the Venetians and Genoese, by whom the goods were distributed to the ports of the Mediterranean, and of the German merchants of the Hanseatic League who transported them overland from Venice to central and northern Europe, affording the amplest opportunities for collecting the infection in its home and spreading it throughout the continent. But after the Portuguese discovered the sea route to India and the Far East the Dutch and later the English built up a world commerce over the high seas, and the substitution of the Red Sea route for that *viâ* the Euphrates Valley and the Caspian Sea closed the last of the direct routes between plague lands and Europe. But it was a matter for serious consideration whether the construction of railways in Asia Minor, Syria, and Persia would not be opening up the old trade routes through countries where the plague was endemic with the substitution of more rapid means of locomotion, for it was not certain that the sea even with its many advantages would always retain its supremacy as a means of international trade. At the present time Hong-Kong, the centre of distribution of the commerce of the Far East, Australia, and the western States of America, was a plague centre also. The seasonal incidence of epidemic outbreaks was governed by some law, for though cases would occur at all or at any times it appeared as an epidemic in certain seasons marked in each zone and climate by approximation to a type. In Europe it was in late summer and autumn, in Egypt somewhat earlier; south of the equator, as at Cape Town and Sydney, from March to May, corresponding to the September to November of northern and central Europe; while in India there were spring and autumn waves depending on the climate. The rise, duration, and decline of each outbreak followed a certain type, little influenced by natural conditions or human efforts save that mean temperatures below 50° F. or above 83° were inimical, but it was not easy to understand how the latter could affect a bacillus the natural habitat of which was the blood at a temperature of 100° unless it were under extra-corporeal conditions. The susceptibility of the domestic animals was a matter of importance. Notwithstanding the failures of Haffkine and others Dr. W. J. Simpson, Dr Hunter, and Dr. Matsuda had succeeded in infecting swine and poultry, as well as monkeys, ruminants, and other animals.—Dr. F. M. Sandwith stated that of 200 ferrets imported into Cape Town very few survived, for though they did kill the rats they were themselves even more susceptible to the plague. The alleged inexplicable disappearance of the plague from Egypt in 1844 and until recently was simply due to the official suppression of reported cases.—Dr. R. A. Farrar, Sir Patrick Manson, Dr. L. W. Sambon, Mr. B. G. Corney (Fiji), the President, and others also took part in the discussion.

MIDLAND MEDICAL SOCIETY.—A meeting of this society was held at the Medical Institute, Birmingham, on Nov. 18th, Mr. Arthur Oakes being in the chair.—Dr. C. E. Purslow showed a Broad Ligament Cyst removed by abdominal section. The patient, aged 72 years, the mother of 11 children, was admitted into hospital with a cystic tumour of the abdomen of the size of a full-term pregnancy. She first noticed that her abdomen was enlarging four months previously. Shortly before this she had received a very severe

blow on the abdomen. On opening the abdomen the cyst was tapped and then after its peritoneal covering had been incised enucleation was commenced. The tumour invaded both broad ligaments completely so that it was impossible to say from which side it sprang originally. The patient made an uninterrupted recovery. Dr. Purslow drew attention to the superiority of vaginal drainage to drainage through the abdominal incision.—Dr. Purslow also showed a Mucous Polypus of an unusual size removed from the cervix uteri.—Dr. J. G. Emanuel showed a case of so-called Crossed or Alternating Paralysis. The patient was a young married woman, 25 years of age, who presented a complete motor paralysis of the face, arm, and leg on the right side of the ordinary hemiplegic type, without wasting and with increased tendon jerks, ankle clonus, and the Babinski reflex. There was no disturbance of sensation or coördination of the muscular or stereognostic senses. The patient also exhibited paralysis of the left fifth cranial nerve, relative anæsthesia of the anterior part of the scalp, the face, the conjunctiva, the mucosa of the mouth, the lips, the tongue, the hard and soft palate, and the nose on the left side, together with hyperalgesia over this area; there was also loss of power with wasting of the temporal, masseter, external pterygoid, and tensor palati muscles of the left side. The senses of smell and taste were unimpaired. The root of the left sixth cranial nerve was completely paralysed and there was paralysis of the left side of the tongue (hypoglossal nerve). All the ocular muscles, both intrinsic and extrinsic, acted well with the exception of the paralysed left external rectus. There was no weakness of the left facial nerve or of the left arm and leg, but the tendon reflexes (triceps, wrist, patellar, and tendo Achillis) were exaggerated on the left side; ankle clonus and Babinski's reflex, however, were absent. In addition to these localising symptoms there were certain well-marked general symptoms, such as severe headaches, cerebral vomiting, and vertigo. Optic neuritis was absent. Dysphagia was a very troublesome symptom and dysarthria was conspicuous and accompanied by a constant dribbling of saliva from the left angle of the mouth. There was no paralysis of the larynx, neither was there incontinence of urine or fæces, albuminuria, or glycosuria. The patient's general nutrition was good and her intellect was clear and keen. These symptoms had come on insidiously and had gradually become more and more marked during a period of from six to seven months in spite of a long-continued course of mercury and iodide of potassium in large doses. Dr. Emanuel thought that the symptoms were probably due to a tumour in the pons growing from the basisphenoid and the basioccipital region.—Dr. J. D. Stanley favoured the view of a gliomatous infiltration of the pons.—Dr. Wilfrid Glegg read a paper on Chronic Inflammation and Suppuration in the Ethmoid. He described empyemata of the ethmoidal labyrinth in their latent, evident, open, and closed forms and discussed methods of diagnosis and differentiation of ethmoidal empyemata from purulent collections in other accessory cavities of the nose.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION.—The annual general meeting of this society was held on Nov. 13th, Dr. V. H. Wyatt Wingrave, the President, being in the chair.—The following officers were elected for the ensuing year:—President: Mr. John Bark (Liverpool). Vice-Presidents: Dr. R. H. Woods (Dublin), Dr. William Lamb (Birmingham), Mr. St. George C. Reid, and Dr. Atwood Thorne. Council (metropolitan): Dr. Wyatt Wingrave (*ex-officio*), Dr. C. O. Hawthorne, Mr. W. J. Chichele Nourse, Dr. P. H. Abercrombie, and Dr. W. Jobson Horne; (extra-metropolitan) Dr. Robert Fullerton (Glasgow) and Mr. Samuel Lodge (Bradford). Honorary treasurer: Dr. Percy S. Jakins. Honorary secretaries: Dr. Andrew Wylie and Mr. W. Stuart Low.—Dr. Wyatt Wingrave showed a case of Persistent Superficial Nasal Hyperæmia cured by removal of adenoids, in a male, aged 25 years.—Mr. Mayo Collier, speaking of this case, referred to several similar cases of his own where improvement had followed turbinal cautery.—Dr. J. Dundas Grant spoke of a similar case where he had scarified the vessels and applied pure carbolic acid with excellent results. He thought that the vestibular portions of the nasal fossæ ought to be more carefully examined in these cases as follicular abscess was a cause of red nose.—Dr. Frederick Spicer showed a case of Accessory Tragus (bilateral).—Dr. Dundas Grant showed a case of Fibroma of the Naso-pharynx in a boy. The operation for the removal of the growth was attended by remarkably little bleeding and was highly successful.—Mr. Mayo Collier showed a case of Frontal Sinus Disease in which recurrence of suppuration had followed the external operation and was only cured after removal of the greater part of the middle turbinal.—Dr. Dundas Grant strongly insisted on the principle that in these cases the anterior part, at least, of the middle turbinal should be removed first of all before resorting to the external operation and that in many cases the performance of this partial turbinotomy would obviate the necessity for the much more severe external operation.—Mr. Bark instanced cases where, in his opinion, a nasal operation had prevented the necessity for the radical operation for frontal sinus disease.—Other cases and specimens were shown by Dr. W. H. Kelson and Dr. Jobson Horne.—Dr. W. D. Haslam described an Improved Screw Maxillary Antrum Perforator.—Dr. Perry Goldsmith (Canada) communicated notes of an unusual case of Empyema of the Maxillary Antrum.—Mr. Chichele Nourse showed a specimen of Radium.

EDINBURGH ROYAL MEDICAL SOCIETY.—A meeting of this society was held on Nov. 20th, Dr. D. C. L. Fitzwilliams being in the chair.—Dr. C. B. Hamilton gave from the chair his presidential address, his subject being "The Hospital." After sketching shortly the evolution of the institution, he devoted himself mainly to the present abuse of hospitals maintained by charity. Those he specially emphasised were: (1) the use of the hospital by people who could afford to pay for medical advice; (2) the tendency among the poorer subscribers to think that their subscription entitled them to all the benefits of the institution; (3) the practice among outside medical men of sending troublesome cases into hospitals; and (4) the habit among hospital physicians of keeping interesting cases under observation in the wards for inordinate periods of time. As remedies for some of these evils the President suggested that general hospitals might be maintained, as fever hospitals and lunatic asylums are, by taxation and that more homes should be provided where middle-class patients could be treated at reasonable charges.—Dr. W. E. Carnegie Dickson read notes on a case of Hyperpyrexia. The patient was a woman who had had previous attacks of chorea—one of them during pregnancy. During labour with a subsequent child she developed nervous symptoms with choreic movement and acute pains in the limbs. Hyperpyrexia to the extent of 108° F. occurred a few days after parturition and in spite of energetic treatment, which was successful in reducing the temperature, the patient succumbed.—A dissertation on Constipation by Dr. W. H. Prentice was read in his absence by Dr. B. P. Watson.

CLINICAL SOCIETY OF MANCHESTER.—The following office-bearers have been elected for the session 1903-04: President: Dr. William Milligan. Vice-Presidents: Dr. Archibald Donald and Dr. H. R. Hutton. Honorary treasurer: Mr. C. F. H. Kitchen. Honorary librarian: Dr. J. W. Hamill. Committee: Dr. E. Vipont Brown, Dr. A. H. Burgess, Dr. J. Gray Clegg, Dr. P. R. Cooper, Mr. R. D. Cran, Dr. W. E. Fothergill, Dr. A. Fraser, Dr. A. B. Fulton, Dr. G. H. Lancashire, Dr. R. G. McGowan, Mr. David Owen, Dr. R. T. Parkinson, Mr. J. Howson Ray, Dr. J. H. Taylor, and Dr. W. K. Walls. Honorary auditors: Dr. W. B. Bell and Dr. F. C. Scotson. Honorary secretary: Dr. C. Christopher Heywood.—The opening meeting of the session was held on Oct. 20th, when Dr. Milligan, the new President, delivered his presidential address on Recent Progress in Oto-Rhino-Laryngology and its Relation to General Medicine. He said that the recent epidemics of influenza had been responsible for the production of many cases of accessory sinus suppuration and pneumonia. He also dwelt on the connexion between enlarged tonsils and in a lesser degree naso-pharyngeal adenoids and the dissemination of tubercle and he drew attention to the frequency with which enlarged cervical glands in children were associated with enlarged tonsils and to the fact that the tract of infection in the first place was through the tonsils.

NORTH LONDON MEDICO-CHIRURGICAL SOCIETY.—A clinical meeting of this society was held on Nov. 12th, Mr. Peyton T. B. Beale, the President, being in the chair.—Dr. S. E. Dore showed a case of Lupus which had been successfully treated by the Finsen light in one part and by the x rays in another part. The former had given the better result. Various other modes of treatment had been adopted

in this case without any good results. A photograph of the patient before treatment was exhibited.—Dr. T. J. Horder showed two cases of Paralysis Agitans accompanied by Osteo-arthritis and a case of Tabes Dorsalis accompanied by Spondylitis Deformans.—Dr. A. Morison showed a case of Graves's Disease of recent date in a young man. The wasting was very marked. There was no family history of this or of any allied diseases.—Dr. H. W. Syers showed a patient suffering from Spastic Paraplegia, the right leg being much more spastic than the left. The diagnosis was discussed.—Mr G. B. Mower White showed a case of Subspinous Dislocation of the Humerus in a girl, with a skiagram. There was some doubt as to whether the case was congenital or whether the condition followed infantile paralysis.—Mr. White also showed a young woman from whose Knee joint a damaged Internal Semilunar Fibroid Cartilage had been removed.—Mr. Upcott Gill, Mr. A. Hair, and Mr. A. de Morgan showed pathological specimens.

Reviews and Notices of Books.

A Short Practice of Midwifery, embodying the Treatment adopted in the Rotunda Hospital, Dublin. By HENRY JELLETT, B.A., M.D., B.Ch. Dub. Fourth edition, revised. With 152 Illustrations and an appendix containing the statistics of the hospital for the last 13 years. London: J. and A. Churchill. 1903. Demy 8vo. Pp. 557. Price 8*s.* 6*d.*

ONLY two years have elapsed since the appearance of the last edition of this text-book. The rapidity with which the various editions have been called for shows that it has met with much appreciation amongst students. The author has carefully revised the present edition but unfortunately has been compelled to increase its size. It is to be hoped that in the future he will be able to limit this tendency and to keep the book within its present convenient compass. In our notice of the last edition we called attention to a mistake in the table on p. 16. We see that it has been altered but the table still gives a very inaccurate account of the heights of the uterus, at any rate at the fourth and fifth months of pregnancy. We again would commend to Dr Jellett a study of the frozen sections of Bayer, Wakleyer, and Webster, as well as the writings of Pinard upon this point. On p. 220 we find the statement given on the authority of Winckel that on the ninth day after delivery the fundus of the uterus lies just above the upper margin of the symphysis pubis. We do not know to which of the writings of Winckel the author is referring. In the second edition of his "Lehrbuch der Geburtshülfe," on p. 186, we find that he says, "der fundus uteri am neunten tag des wochenbettes schon hinter der symphyse liegt," which can hardly be translated above the upper margin of the symphysis pubis. Dr. Jellett may quite well be referring to some other statement made by Winckel. We would point out, however, as Webster has shown, that Winckel's description of the rate of involution of the uterus, in the light of the frozen sections published by Webster himself and by others, cannot be accepted as entirely accurate. It is very interesting to note how the uterus might with some accuracy be described, as can be seen in the section published by Webster of the pelvis of a woman on the sixth day of the puerperium, as lying behind the symphysis pubis although the highest point of the organ is, of course, some distance above that level.

These criticisms of minor points in no way diminish our appreciation of the book as a whole. It is, as we have said before, a most excellent work and we can very strongly indeed recommend it to students. Several new illustrations have been inserted in this edition which still further increase the value of the book. The statistics of the Rotunda Hospital for the years 1901 and 1902 have been added to the appendix making up a total of 18,401 cases of labour.

Handbook of Diseases of the Ear, for the Use of Students and Practitioners. By RICHARD LAKE, F.R.C.S. Eng., Surgeon to the Royal Ear Hospital, Lecturer on Practical Otology, Medical Graduates' College. With Three Coloured Plates. London: Baillière, Tindall, and Cox. 1903. Pp. 232. Price 6*s.* net.

THERE is perhaps no department of medical study which is less known to the average student than otology and this lack of knowledge persists even after graduation in only too many cases. The removal of inspissated cerumen from the ear is often the only treatment ever adopted for this part of the body. For such a condition of things there are at least two main causes. It results partly from the fact that special departments in this subject are of somewhat recent foundation and partly from the fact that it is very rare for any question on otology to be asked at any examination, so that the student prefers to devote his attention to studies more remunerative from an examinational point of view. There is yet another reason for the prevailing lack of knowledge about diseases of the ear and that is the scarcity of text-books on this subject, and therefore we can extend a hearty welcome to the little work lying before us. In the first place, the book is not too big and this is distinctly a merit, for few students or practitioners have much desire or time for a lengthy treatise, and yet the book contains enough of the subject to supply the amount of information required for ordinary purposes. The introductory chapter on the anatomy of the ear is good and is illustrated by sections and diagrams; it is not too elaborate and says nothing about the structure of the internal ear, but it devotes much attention to the middle ear and the mastoid cells. Other chapters deal with the examination of the patient and special symptoms and their import. A very good section is that devoted to the use of instruments. The most important lesions connected with the ear are those in which there is suppuration in the cavity of the tympanum and its neighbourhood, and Mr. Lake gives a very satisfactory account of middle-ear disease and its complications and an adequate description is given of the operations. The influence of diseases of the middle ear on life assurance is considered and a useful formulary concludes the volume. In the list of counter-irritants we find mentioned linimentum iodi and pigmentum iodi; the former has changed its name in the present Pharmacopœia and the latter has never had an official existence and its composition is liable to vary. We think well of this little volume and consider that it should have a wide field of usefulness.

LIBRARY TABLE.

The After-Treatment of Operations: A Manual for Practitioners and House Surgeons. By P. LOCKHART MUMMERY, F.R.C.S. Eng., B.A., M.B., B.C. Cantab., Demonstrator of Operative Surgery, St. George's Hospital; late Senior House Surgeon, St. George's Hospital. London: Baillière, Tindall, and Cox. 1903. Pp. 221. Price 5*s.* net.—The importance of the after-treatment of patients who have been submitted to operation has hardly been appreciated at its full value. The difference between the results obtained by various surgeons is to be attributed not so much to a difference in their operative skill but in great part to a difference in the care bestowed on the patient after the operation. All surgeons who have had much experience of operations will agree that in spite of a brilliantly performed operation a patient's life may be lost by lack of attention to some small but vital detail in the after-treatment. Important, then, as this subject is it is strange that so little attention has been accorded to it in

surgical literature. Scattered about in the various treatises on surgery may be found brief references to special points but we believe that hitherto no attempt has been made to deal in one volume with the whole subject of the after-treatment of operations. Mr. Mummery has done the work well and his book should prove of great value to students and to those who have to look after patients subsequently to operations. Shock is probably at the present time the greatest danger after operation, for thanks to modern methods the risks of sepsis are but small. Mr. Mummery prefers to consider shock and collapse as synonymous and we agree with him that shock is the better name of the two, especially as it has been received into several foreign languages. The author discusses the physiology of this condition and shows that the dilatation of the vessels of the splanchnic area, excited by injury to afferent nerves, is the chief cause of shock. The heart is only secondarily affected by the fall in venous blood pressure interfering with its intake. The treatment of shock is given very fully. Warmth is of great value but if it is excessive and profuse perspiration is produced the shock will tend to be greatly increased. Position is of importance and the author expresses approval of bandaging the extremities to raise the blood pressure. Stimulants are of use but Mr. Mummery considers that their value in the treatment of shock is often over-estimated. They are best given in small repeated doses and should be combined with some other form of treatment, such as saline transfusion, which will raise the blood pressure. In the author's opinion transfusion is one of the most valuable remedies for the treatment of shock and with this we agree. The needle of an exploring syringe may be used and, as Mr. Mummery points out, it can be passed into the vein through the skin without any preliminary incision. Hæmorrhage after operations, post-anæsthetic complications, and treatment of the wound are also considered. Then follow chapters dealing with operations in special regions of the body, such as the head, the neck, and the abdomen. Each subject is accompanied by a useful little bibliography. An appendix deals with rectal, nasal, and subcutaneous methods of feeding. With reference to the last method the author thinks that in certain cases it may prove useful; "sterilised olive oil seems to give the best results." Diet, massage, exercises, and artificial limbs also receive consideration.

Portfolio of Dermochromes. By Professor JACOBI of Freiburg im Breisgau. English adaptation of text by J. J. PRINGLE, M.B., C.M. Edin., F.R.C.P. Lond., Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. Parts 3 and 4. London: Rebman, Limited. 1903. Pp. 180 and 80 Plates. Price for the whole work from £2 10*s.* to £3 3*s.*, according to form of binding.—In noticing Parts 1 and 2 of this work we spoke very favourably of the method of reproduction employed and the illustrations in the parts before us in no way fall short of their predecessors. With the issue of these two parts the work is completed. Part 4 deals chiefly with skin affections of syphilis and of other venereal diseases. A work like this appeals not only to those who are specially interested in dermatology but also and even more to those members of the profession who are in general practice and who wish to have coloured plates which may aid them in diagnosing any unusual diseases of the skin with which they may meet. The plates can be obtained loose in a portfolio or bound in various styles.

Anleitende Vorlesungen für den Operations-Cursus an der Leiche. (*A Course of Operations on the Dead Body.*) Von Professor E. VON BERGMANN, Wirk. Geh.-Rath., Generalarzt, und Dr. H. ROCHS, Generalarzt im Königlich Preussichen Sanitäts-Corps. II. Theil. Mit 76 Abbildungen. Berlin: Verlag von August Hirschwald. 1903. Pp. 207. Price 4 marks.—This part deals with the operations on the skull, the spine, the thorax, and the abdomen. We find described, somewhat briefly, the chief points of operations as carried out on the dead body and many more operations are included than are usually performed by students in this country; for instance, an account is given of the method of exposing the heart. The book is abundantly illustrated and is very good but its size prevents anything like a complete description of the methods of operating. Still, it should prove useful to a candidate for any of the higher surgical examinations in assisting him to carry out operations on the dead body.

The Complete Law in Nature Unveiled. By F. WARNER JONES, C.E. London: *Knowledge* Office. 1903. Pp. 32. Price 1*s.* 6*d.*—We are not sure how far it is useful to notice a book of this singular description. The author having observed that a drop of water assumes a globular form when falling has confused the phenomena of surface tension with those of gravitation. Inasmuch as Newton did not attempt to assign a cause to gravitation but contented himself with its experimental verification the author takes this loophole to promulgate his own theory of "globulation." Although intended to complete the law of gravitation, the author makes no allusion to the observations of Newton and others on the movements of the heavenly bodies and the results arrived at, nor does he discuss the methods by which they came to these conclusions. The author speaks of the "similarity of construction" to be noticed "not only in our own bodies but throughout all nature" and concludes that this is the result of some great law which he subsequently calls "globulation"; but the necessity of reconciling this with the tendency that most inanimate things have of assuming a crystalline form has been overlooked. Again, in a review of the shortcomings of the law of gravitation we should expect at least a reference to the determinations of the mean density of the earth by Cavendish, Boys, Poynting, and others. His explanation of the circulation of the blood is notably curious.

Traité d'Analyse Chimique Quantitative. Par le Dr. BLAIS. (*Treatise on Quantitative Chemical Analysis.*) Paris: A. Maloine. 1903. Pp. 495. Price 6 francs.—This book is not intended for students but, as the author states, for pharmacists who are often asked to report on the quality of many substances in general use. The author gives preference to volumetric methods of analysis, 20 pages of the first part of the book being devoted to descriptions of determinations with standard solutions of acids and alkalies, whilst two pages suffice for the explanation of gravimetric methods. The second part deals with the estimation of various metals and non-metals and acid radicles, including a good account of recently improved methods for detecting minute quantities of arsenic in foodstuffs or in the organs. In the third part over 100 pages are devoted to the analysis of urine. Not only is the presence of abnormal constituents taken into consideration but also the deviation from average composition exhibited in the amounts of the normal constituents. To this end various co-efficients showing these relationships are given and their use is explained. There are several figures descriptive of the microscopical appearance of the different urinary deposits. The remainder of this part is occupied with the examination of milk, beer, and wines. This book should prove very useful for the class for whom it is intended in France, but for English analysts and pharmacists there are trustworthy treatises accessible in our own language. Should anyone working at chemical analysis have in hand a number of French samples he would find the book help him to put his reports in such a form as to be more readily understood by Frenchmen.

Home Nursing. By BERNARD MYERS. London: Baillière, Tindall, and Cox. 1903. Pp. 131. Price 2*s.* 6*d.* net.—This is a useful little book but we think that Dr. Myers goes rather beyond his definition of home nursing given in the first sentence: "By Home Nursing we mean to imply the care of the sick in their own homes by a person who has not had a proper hospital training." The preface, too, states that "this book is written in the hope that it may be of service in guiding an untrained nurse in her duties when administering to the sick and dear ones at home." The ideal is excellent but, like most ideals, it will not be attained—in our opinion at least. No one can learn nursing, anatomy, or physiology from a book. The book, however, is sound enough in itself and the directions are clearly laid down. Its great use will be for persons far removed from medical aid who must rely on their own resources and it possesses one singular advantage—namely, that it will not tempt the amateur nurse to take too much upon herself. Some recipes for sick-room cookery are given which are good except in one point—namely, in the recipe for white wine whey. Dr. Myers says, "Add two wine-glasses of cooking sherry." Now, what is called "cooking sherry" is an abomination. We do not mean to say that Oloroso at 60*s.* a dozen need be used but if sherry is not good enough to drink by itself it is certainly not good enough to cook with and more especially in the case of an invalid. There is plenty of real sound sherry to be purchased for 30*s.* a dozen or even less.

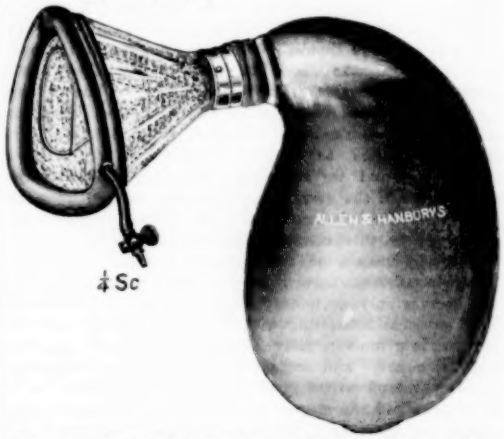
The Sea Shore. By W. S. FURNEAUX. London: Longmans, Green, and Co. 1903. Pp. 436. Price 6*s.* net.—This is an admirable book to give to anyone who lives by the sea or spends his holiday there. Of course, most of the creatures here described are not to be found on a chalky shore for the true hunting ground of the marine naturalist is off the shores of Devonshire, Cornwall, and the Welsh coast. But the delights of the rock pools have seldom been set forth in a more attractive manner since the days of "A Year by the Shore," "Glaucus," and "The Water Babies." Mr. Furneaux gives simple descriptions of all living forms to be met with on a rocky sea coast, the book is plentifully illustrated, some pictures being good examples of colour printing, and he has succeeded in making the problem of the tides intelligible.

ERRATUM.—In a review which appeared in our issue last week (p. 1441) of "A Short Manual of Analytical Chemistry" the author's name should have been given as John Muter, Ph.D., F.I.C., F.C.S., and not Nuter as printed.

New Inventions.

APPARATUS FOR THE ADMINISTRATION OF SOMNOFORM.

THE accompanying illustration represents an apparatus which I have been using for some time for the administration of somnoform and consists of a celluloid face-piece and a rubber pad connected to a rubber bag. A piece of lint, easily changeable, about 4 inches by 8 inches, can be adapted to the interior of the face piece by means of a special spring. I have found that with this apparatus a dose of from 2·5 to 3 cubic centimetres of somnoform is enough to produce within from 45 to 50 seconds an anæsthesia sufficient either to act as a brief general anæsthetic or as a precursor to ether. The advantages I claim for my apparatus are: 1. Simplicity of construction, there being no valves, or anything else, liable to get out of order. 2. That the lint does not require any special shape, a piece 4 inches by 8 inches being all that is necessary. 3. That the aperture leading to the bag has been made especially large to prevent any difficulty in respiration. 4. That the cost of the apparatus, fitted with one face-piece, is only £1 1*s.* and is therefore relatively inexpensive.



The apparatus has been made to my design by Messrs. Allen and Hanburys, from whom it can be obtained.

H. EDMUND G. BOYLE, M.R.C.S. Eng., L.R.C.P. Lond.,
Junior Resident Anæsthetist, St. Bartholomew's Hospital.

Looking Back.

FROM

THE LANCET, *SATURDAY*, NOV. 26, 1825.

FOREIGN DEPARTMENT.

ANALYSIS OF FOREIGN MEDICAL JOURNALS.

Chemical Experiments on Morphine.

Chemists have not hitherto been able to obtain morphine in the state in which it exists in opium, since opium is entirely dissolved in water, while pure morphine is nearly insoluble. For this reason morphine has been introduced into the materia medica in a state of combination with an acid, such as the acetic sulphuric acid, &c.; hence the names of acetate of morphine, sulphate of morphine, &c.

A memoir lately published by M. Robinet, seemed to have solved the difficulty. The experiments of M. Robinet, though the direct object of them has not been accomplished, have been attended with some curious and important results. He has discovered that morphine, and the salts of morphine, with the muriate of iron highly oxidised, produce a deep blue colour, exactly resembling that produced by a hydrocyanate, and, what is very singular, this effect is owing exclusively to the morphine. Some particles of morphine, wetted with a drop of the solution of peroxidised iron, produce immediately this blue colour; but if a few drops of any acid, though greatly diluted, be added, the colour disappears. Acetic æther and alcohol produce the same effect; but not sulphuric æther, unless some portion of alcohol remains. The presence of the alkali seems to favour the production of the blue colour.

Powdered morphine, mixed in a very weak solution of muriate of iron, gives it a blue colour, is dissolved, and at the end of some days precipitates a certain quantity of yellow oxide of iron. These characters prove sufficiently that the colour produced by the morphine is not to be confounded with that produced by the hydrocyanates under the same circumstances. Quinine, cinchonine, strichnine, and brucine, exhibit no such phenomena.

The memoir of M. Robinet contains many other details, interesting in a chemical point of view, but less immediately connected with the objects of this journal. The results of the above experiments are not only curious, as exhibiting a new property of morphine, but may be of practical importance in medical jurisprudence.—*Gazette de Santé, Oct. 15.*

THE LANCET.

LONDON: SATURDAY, NOVEMBER 28, 1903.

The Annual Meeting of the Royal College of Surgeons of England.

THE recent annual meeting of the Fellows and Members of the Royal College of Surgeons of England was remarkable chiefly for the air of friendliness which pervaded the whole assembly. Those who have attended these meetings from their foundation will acknowledge that there was not one of its 18 predecessors which was not characterised by acrimonious accusations of the wilful deprivation of the Members' rights—not one unaccompanied by the employment of violent expressions better left unspoken. We do not mean to imply that there was no inharmonious note to be heard at the meeting this year, for a position of things exists, owing to the present constitution of the College, which drives the Members into conflict with the Council. Some of the oft-made attacks on the government of the College were made and will continue to be made until the Members have a voice in the management of their corporation. But amid all the blame and accusations, and in spite of them, most of those who were present wore an amiable and contented air, sometimes in contrast to the language employed, and in this urbanity we see good omen.

Over and over again we have spoken of the reasonableness and the justice of the claims of the Members of the College. We have urged in season, and some may have thought out of season, the great necessity which exists for a fundamental change in the constitution of an oligarchic body and therefore no one really conversant with the question will suggest that THE LANCET can be lukewarm in the advocacy of reform at the Royal College of Surgeons of England. Yet so-called reformers have referred to our recent attitude as one of inaction, not seeing that the best cause may be injured by the injudiciousness of its supporters. And it is useless to attempt to disguise the fact that there have been among the advocates of reform some who have damaged their cause by the unrestrained violence of their invective and by the unmeasured accusations which they have hurled against the Council. They accused the Council of treating the Members illegally, of wilfully withholding from them the franchise in spite of a full knowledge of the justice of the Members' claims, and of deliberately mismanaging the affairs of the College. Accusations such as these to those who know the members of the Council cannot but appear to be puerile. Whatever they may do in a corporate capacity, whatever errors they may commit as a Council, it must be acknowledged that as individuals they are conscientious gentlemen and accomplished surgeons, whose actions are based on what they consider to be the real needs of surgical education and who do their best at great sacrifice of time and trouble to carry out the responsible duties with which they are intrusted. No good can be done to the cause of reform by invective of the sort that carries its own contradiction. We know that such methods have alienated many of the Members who feel strongly the need of reforming the constitution of the College but who hesitate to associate themselves with the denunciations so freely scattered over the Council by some of the advocates of reform. We are careful to mention that this excessive zeal distinguishes only a portion of the reforming party, for of many of them it may be said that controversy could not be carried out in a more urbane and more kindly spirit than it is by them. We must attribute to some extent the meagreness of the attendance of Members at the annual meeting to the feeling which we have indicated. They do not want to take active part in proceedings the tone of which they dislike. Let us hope that a better spirit will prevail, so that the cause of the Members may be again supported, not only by themselves as a body, but by the coming members of the Council, that is to say, the Fellows. It is most important that the support and the sympathy of the Fellows should not be lost. Many of the Fellows are keenly alive to the justice and the expediency of the claims of the Members and it would be a thousand pities if their coöperation should be heedlessly thrown aside. At the present time the elective power is wholly in the hands of the Fellows and it is certain that on their attitude much will depend if and when the question of reorganisation of the College comes up for consideration by the legislature. Should, therefore, even a few of those Fellows who support the extension of the franchise be estranged the cause we have at heart will suffer. Members of the College must not think that our desire for reform has in any way weakened; it is the very earnestness of our wish for the extension of the franchise to the Members that urges us to advise temperate procedure. Never before have there been in the Council so many who are favourably disposed towards the claims of the Members, while the President has shown what he thinks of the need for modification in the electoral basis of the College. Mr. TWEEDY is, we are sure, as ready as ever to do his utmost to secure for the Members their due, but the Members on their part must assist him by showing that they are worthy of the privileges to which they lay claim. Absurd recrimination must be abandoned.

To those present at the meeting it was instructive to see the reception given to the third and fourth motions brought forward. Each was practically a vote of censure on the Council, in the one case for refusing information as to its deliberations and in the other for disobeying the General Medical Council in the matter of the teaching of the preliminary scientific subjects. The lucid explanations of the President, assisted in the matter of the dispute with the General Medical Council by Sir HENRY G. HOWSE, sufficed to change the whole aspect of affairs. With the consent of the meeting the introducer of the third motion withdrew it, and although the fourth motion was put to the vote it was lost. The meeting was quick to recognise that the Council was endeavouring to do its best for medical education, that it was acting from a keen sense of right, and that it had not inconsiderately entered on

a struggle with the General Medical Council. This resistance of the London corporations to the central authority appears to us, for reasons which we have given at length,[1] particularly unfortunate, but the care with which the ruling bodies of the corporations had selected and inspected the schools for teaching preliminary subjects was made apparent in the President's speech, and the applause which followed testified to the appreciation by the meeting of the sound intentions displayed. All this shows the discredit into which the violent tactics of the past decade have fallen.

The Fear of Failure.

IN our last issue we dealt in some detail with the evidence adduced at the inquest upon Miss HICKMAN. The verdict emphasised the narrow boundary which separates insanity from an overwhelming sense of fear, and yet in many ways fear is not necessarily an evil. "Early and provident fear is the mother of safety." In these few words BURKE indicated his opinion of the political value of fear and its importance as a stimulus for the adoption of proper precautions. It is probable that every new venture in every walk of life, though instigated by the loftiest aspirations, is nevertheless accompanied by a haunting fear of failure. The greater the departure from the normal dull routine the more oppressing is the sense of fear due to the uncertainty of result. We wish to know the "end of this day's business ere it come." We are anxious to begin and when once fairly engaged upon the enterprise fear may be forgotten, but we have had the moment of panic, during which much courage may have been needed to hide the inner tumult of feeling.

In professional life fear, though repressed, waits largely upon every step. It takes long practice to overcome the fear of failure which is so oppressive to the conscientious efforts of youth. There are numberless pitfalls to be encountered at every turn: the possibility of failure of diagnosis, of failure of nerve at the moment of strain, of failure of some minute precaution upon which may depend the success of an operation and possibly the life of the patient. In a professional sense the fear of failure indicates a realisation of responsibility, and it is probably most acutely felt by those who have conscientiously striven to attain a thorough mastery of their profession, while those with only a moderate degree of academic equipment may be free from it, inasmuch as they do not know that there is any cause for anxiety. It is the knowledge of possible dangers which unnerves those with little practical training—those who could, perhaps, glibly describe serious surgical operations with the utmost minuteness but have never been called upon to demonstrate their powers by the simplest proceeding, those who may have frequently assisted with the greatest efficiency so long as they were carrying out instructions but have never experienced the weight of individual responsibility. The sense of fear does not imply incompetency. It is only the momentary panic which precedes action and it may sometimes arise from a sudden and overwhelming appreciation of the degree of confidence reposed in the individual and the dread lest some untoward circumstance should tend to show him unworthy of the trust. The fear of failure may be due to an inherent modesty, to a spirit of self-depreciation which recognises human limitations without doing justice to the chances of success where others have succeeded. It is the humility which recognises weakness and takes no thought of power; in the realisation that the time of trial has arrived panic may reign, obliterating consciousness of all the arduous steps by which the ascent has been made to the position which at once offers the chances of success or of failure. The moment of panic is probably experienced in every phase of life demanding individual judgment, skill, and action, and it can often only be met by self-control, by restraint, and by watchful care, and still more by turning from gloomy forebodings to the necessities of action, when self is wholly forgotten and the faculties are concentrated upon overcoming difficulties. FANNY KEMBLE vividly described her miseries before her first appearance as JULIET, how she "sat ready for execution" with the palms of her "hands pressed convulsively together," and yet this was the unseen prelude to a performance which roused a tumult of applause and established her fame as an actress. After all, it is *le premier pas qui coûte;* when that is safely passed the rest is easy.

In the profession of medicine the first public appearance is necessarily less abrupt than in the life of an actor. In the training of medical students the gradations of increasing responsibility are made by easy stages, in which the rate of advance may scarcely be realised by the individual. As a clerk and as a dresser in the out-patient room and in the wards every step is checked, controlled, and judged by friendly critics who sympathise even while they stimulate to greater exertions, to more earnest work, and to greater self-control. The fear of failure is at this stage of small account compared to the fear of ridicule, the invariable sequel to any thoughtless or careless action or speech, a sequel which is supplied freely by fellow-students even when the teacher in mercy refrains. This chaffing accompaniment, when given and taken in good part, is of immense educational advantage. Under its influence the habit of self-control is gradually acquired until the student is ready to present himself for examinations which end in his qualification, when he may pass into practice or, preferably, become a resident officer at his hospital. It is in the fierce light of the publicity of these resident appointments that the first shock of responsibility, the first real fear of failure, may come, and the shock must come to all, though it may be greatly increased or diminished by individual temperament and by the practical or theoretical character of the previous work. Happily, the junior resident invariably feels that he is sure of the loyal support of his colleagues and of the members of the staff so long as he acts with prudence and so long as he is obviously doing his best. Happily, also, he is generally a light hearted and healthy-minded person and, although fear of failure may momentarily possess him, he cheerfully goes on his way doing his duty and earning his reward of kindly praise from the staff when difficulties have been properly and judiciously encountered. Very rarely, indeed, is it found that the fear of failure hampers the work, unless it is a question of temperament, and yet the dire results which in the recent instance followed from yielding to its sway must render everyone

[1] THE LANCET, June 13th, 1903, p. 1680.

connected with a hospital ready to echo the prayer of HENRY V.:—

> "O god of battles, steel my soldiers' hearts,
> Possess them not with fear."

The Mansion House Council on the Dwellings of the Poor.

WHEN Mr. W. S. GILBERT wrote that "the law is the true embodiment of everything that's excellent" he probably did not expect to be taken too seriously; at any rate he could not have had in mind the attempts of our legislature to deal with the problem of providing sanitary dwellings for persons of limited means. The law has indeed shown itself to be well meaning but its efforts towards reform are hampered by the claims of vested interests, while the demands made upon the energies of Parliament and municipality alike by the strife of party and the struggle for place are excessive. In these circumstances such a body as the Mansion House Council on the Dwellings of the Poor is seen to great advantage, working as it does singly for the advancement of the health of the community, studying all questions relating to housing and sanitation, watching and, if possible, influencing public opinion on these matters, and promoting where practicable Parliamentary action.

The business-like report of the council for the year ending June 30th, 1903, has recently been published and affords ample evidence of the necessity for some improvement in the existing methods of coping with overcrowding and the other hygienic shortcomings which discredit modern civilisation. We may take a case which is set forth in detail. According to the report on four occasions between March, 1898, and February, 1899, the attention of the St. Marylebone Vestry was called to a certain Nightingale-street and in the latter month a reply was received by the Mansion House Council to the effect that "the whole street has been condemned under the Housing of the Working Classes Act as unfit for human habitation and the matter is at the present time in the hands of the London County Council." In consequence of this statement a communication was sent to the London County Council and a correspondence was thus initiated which continued up to March, 1902. In May, 1902, the Marylebone borough council was asked to undertake the closing of the premises and it replied that its public health committee had considered the matter which was being fully dealt with. Five months later nothing had apparently been done and a further appeal was therefore made to the County Council. The discussion thus renewed was still proceeding when the report was published. It is stated that in 1900 the County Council "had prepared a scheme under Part 1 of the Housing of the Working Classes Act for the improvement of the area" and a reference to that Act throws a good deal of light upon the cause of the delay. The Act was passed in 1890 and it repealed and consolidated a number of other Acts. Under Part 1 when a sanitary authority wishes to deal with an unhealthy area an "official representation" has to be made to the authority by the medical officer of health of the district or, in certain cases, by a medical practitioner appointed for the purpose by the Home Secretary or the Local Government Board. Being thus prompted the sanitary authority is required to prepare an "improvement scheme" and if it fails in this duty a local inquiry may be ordered by the Home Secretary or the Local Government Board according to whether the property is situated in the metropolis or elsewhere. A scheme having been adopted notice of it has to be given in the local newspapers and to owners, occupiers, and others concerned and then a petition is presented by the sanitary authority to one or other of the higher authorities above mentioned praying for confirmation of the scheme. The confirming authority orders a local inquiry and if satisfied makes a "provisional order" which in due course is introduced as a Bill into Parliament and may, after being referred to a committee, attain the dignity of an Act. This is but a brief outline of the complicated procedure called for but it will suffice to explain why the repeated protests of the Mansion House Council bore so little evident fruit. The action of the council, however, brings out the inadequacy of existing legal methods and in this way should make for reform.

In another field more has been done by the council. At the instance of Mr. N. L. COHEN its executive committee prepared a report suggesting administrative and legislative changes which would accelerate the working of the Housing Acts and this was brought by Mr. CLAUDE HAY, M.P., and Dr. MACNAMARA, M.P., before a meeting of Members of Parliament and other interested persons with the object of securing from all sides of the House support to an amendment of the Acts. The result was the formation of an advisory committee on housing to embody in writing and to communicate to sympathetic Members of Parliament proposals for improvement in the law. This committee, with Sir JOHN GORST, M.P., at its head, at once put itself into communication with the President of the Local Government Board, the issue being the passing without opposition of the Housing of the Working Classes Act, 1903. Among the important provisions of this Act are two upon which the Mansion House Council lays special stress. Of these, the first is the scheme which insures that where 30 or more persons of the working classes are displaced under Parliamentary powers by public companies, school boards, or in the course of public improvements, the displacing authority must consult the Local Government Board and make such provision for rehousing as in the circumstances the Board thinks necessary. The second prohibits landlords from any longer taking advantage of Section 75 of the Housing Act of 1890 which enabled them, in cases where the annual rental did not exceed £20, to contract out of their obligation to see that at the commencement of a tenancy the house was reasonably fit for habitation. The general routine of the council's work shows an equally practical trend. By means of its local sanitary aid committees it has collected and brought to the notice of the sanitary authority for the particular district a large number of cases in which, owing to defective fittings or otherwise, houses were in a dangerous condition. A paid inspector made 3545 visits dealing with 1970 cases, of which 743 were remedied. In addition to this the council has circulated numerous leaflets and other publications dealing with questions of the prevention of disease and a series of Shaftesbury Lectures on public health were

delivered by Mr. BUDGETT MEAKIN. Considering the very limited pecuniary resources of the council this is an excellent record only made possible by the gratuitous services of all the chief officers. There is, however, ample work for another paid inspector and the council would gladly welcome an access of annual subscribers of whom those contributing £1 or more become members of the general council. The honorary secretary is Mr. W. F. GRAIES, of 31, Imperial-buildings, Ludgate-circus, London, E.C., and the honorary treasurer is Sir J. C. DIMSDALE, Bart.

The Progress of Experimental Psychology.

NEARLY ten years have elapsed since we drew attention[1] to the first course of lectures on experimental psychology then being delivered in London at University College. A few weeks ago, in our issue of Nov. 7th, we chronicled the recent addition of an experimental psychologist to the physiological staff of the University of Liverpool and the appointment of a lecturer on experimental psychology at King's College, London. During the interval between these announcements the accurate study of mental phenomena has made such continuous progress that experimental psychology may be said to have emerged quite definitely from the metaphysical atmosphere of mental philosophy which formerly enshrouded it. People now recognise that psychology is amenable to scientific treatment, and in a short time the prefix "experimental" will be regarded as superfluous for psychology as it is now for physiology.

It is hardly to be expected that the laboratories for psychological research which have sprung up during the past few years in England should equal in elaborateness those that are to be found abroad, especially in the United States. Nor has psychology been able to attract in this country the large number of original workers who are to be found on the continent, partly because we have hitherto neglected the encouragement of post-graduate research and partly because the value and bearing of the subject are so imperfectly recognised here. But although the laboratories at Cambridge, at King's College, London, and at University College, London, compare so unfavourably with the splendidly equipped buildings, ranging from eight to 19 rooms, at Columbia, Harvard, Cornell, and other universities, the subject is nevertheless attracting an increasing number of workers in this country. A psychological society has of late been successfully founded and a new journal—the *British Journal of Psychology*—is to make its first appearance next January and will be devoted solely to psychological as distinguished from epistemological research. It is particularly in relation to education and to diseases of the nervous system that psychology must prove to be a valuable helpmate and it is here that we have some progress to report. Even though it be true that teachers are born and not made, they must nevertheless be properly trained. The fate that long ago befell apprenticeships in medicine and surgery is rapidly overtaking the archaic system of pupil teachers in schools. There is a growing feeling that teachers cannot but profit by an acquaintance with the broad lines of mental (and bodily) development of the child, by a training in pedagogical methods and by a knowledge of the psychological principles underlying those methods. Already in at least one university abroad teachers are familiarised during their course of training with cases of feeble intellect, myopia, deafness, chorea, and other defective conditions of the child's nervous system, in order that they may later recognise and direct medical attention to them at the earliest opportunity. For in primary schools, at least, the teacher stands literally *in loco parentis*. With regard to experimental work we have to note continued progress in the researches initiated by EBBINGHAUS upon memory, retentiveness and association, the collection of children's mental experiences by STANLEY HALL, the investigation of eye and hand movements during reading and writing, and the exact study of the reciprocal effects of mental and bodily exercise. These and allied problems when more completely worked out cannot fail either to modify or to give a scientific basis for various pedagogical maxims which have as yet a mere empirical foundation.

There is little fear of exaggerating the close relation between experimental psychology and diseases of the nervous system. It is hardly too much to say that the clinical investigation of every nervous or mental case constitutes a crude experiment in psychology. But such rough-and-ready determinations, adequate as they may be for our present methods of diagnosis and of treatment, are wholly insufficient to throw fresh light on the complex nature of our mental build. Indeed, no one can pretend to investigate pathological affections of the senses with the needful accuracy, or continue such original research as has been undertaken by KRÄPELIN upon the abnormal mental states induced by drugs and disease, unless he has had a far more thorough education in psychological methods than is at present generally offered to medical students. If the time has not come for urging that the intending psychiatrist needs a special training as much as the sanitary expert, we may at least hope that greater facilities and encouragement will soon be afforded for a more thorough training of such students in experimental psychology.

[1] THE LANCET, Jan. 13th, 1894, p. 102.

Annotations.

"Ne quid nimis."

THE ROYAL DENTAL HOSPITAL OF LONDON.

THE dental profession in general and the authorities of the Royal Dental Hospital in particular are to be congratulated on the results of their efforts to place the calling and practice of dentistry on a high professional level. The most important factor which has led to this progress has been the better provision of educational facilities and the equipment of an institution in which dentistry can be thoroughly studied in all its branches. Not afraid to face the question of cost and encouraged by the practical support of their own students the authorities at the Royal Dental Hospital may now claim to possess an admirably equipped dental school and hospital with accommodation ample alike for educational and charitable requirements. Since the acquirement of the new and commodious premises in Leicester-square the number of cases of relief amongst

the necessitous classes has increased enormously and the committee of management earnestly appeals for donations in order that the debt on the building may be removed and that the excellent efforts to bring relief may not be relaxed for want of funds. Many interesting facts in connexion with this philanthropic work were related by several speakers on the occasion of the annual dinner of the staff and past and present students which was held at the Hotel Métropole on Nov. 21st. Mr. F. J. Bennett, who occupied the chair, in proposing the toast of "The Past and Present Students," referred to the excellent relations existing between the students and the staff and took the occasion to make an appeal for the more extended study of the bacteriological problems in connexion with dental subjects, especially in regard to caries of the teeth. He suggested the founding of a professorship of dental bacteriology. The toast was responded to by Mr. G. W. Bateman and Mr. F. Butler, the former putting in a plea for a fuller appreciation of the importance of the mechanical side of dentistry than was at present given, and the latter gentleman expressing the thanks of the students for the opportunities supplied by the efforts of the school committee for studying the theory and learning the practice of dentistry. Mr. J. Bland-Sutton proposed the toast of "The Hospital and School" and congratulated those present on the equipment of the institution. Referring to the question of financial requirements, he said that, after all, it was a good thing to feel the presence of such a necessity because it spurred on those concerned to further efforts. In replying to this toast Mr. Walter Hills gave an interesting sketch of the history of the school and laid stress on the services rendered by Mr. C. Stoneham. The dean of the school, Mr. Morton Smale, also replied and acknowledged the assistance which had been so liberally provided by the students who had received their education at the institution. Mr. W. S. Nowell gave the toast of "The Visitors," to which Mr. J. Murray replied in a short speech in which he referred to the excellent relations existing between the dental and medical schools. A selection of music was given under the direction of Mr. H. Schartau and the proceedings came to a conclusion after Mr. A. Hopewell-Smith had proposed the health of the chairman which was suitably acknowledged.

THE COMMON COLD.

IT is not long since a discussion of the "common cold" was every week claiming a considerable proportion of the space devoted in THE LANCET to the letters of correspondents. We doubt not that the same subject is prominent once more both in the minds of practitioners and in the emotions of those whom recent wet and cold have made singularly mindful of the unpleasantness and many mysterious qualities of the common cold. However doubtful the influence of chilling the surface of the body may be in the production of other ailments there can be no question as to the importance of the part which it plays in the causation of many colds; although chill alone is not sufficient to cause a coryza, another etiological factor is also necessary. Modern medical teaching eliminates the "chill" from many etiologies of disease in which the medical student of former times was taught to mention it, but in this ailment at least the time-honoured cause must probably be accepted. Many persons can count for certain upon the presence of a "cold" in their systems within a few hours of having experienced a chill. They state that they literally feel themselves catch cold. Whether this feeling merely bears witness to certain predisposing conditions for bacterial infection, as many maintain, or whether the vaso-motor changes underlying the feeling constitute the essential features of a cold, we should be sorry to have to decide. Of the curious susceptibility and disordered state of the vaso-motor system during the presence in the organism of a "cold" we have not much doubt. One noticeable symptom of this we do not remember to have read of until recently. This is the effect which warming a limited region of the body has in producing a chilled sensation of the remainder in the person of a patient who has a cold. If, for instance, having a cold a man sits sideways by a fire so that one leg is especially heated he experiences a chilling over the rest of his person and may even be caused to shiver. The effect is a kind of complement of what happens when a person similarly affected sits in a draught and thus chills part of his body to a degree of temperature lower than that of the rest. It seems equally mischievous to warm a part considerably more than the general surface of the body.

THE LANCASTER MEDICAL BOOK-CLUB.

THIS society has just celebrated its eightieth anniversary. It was formed on Nov. 11th, 1823, at a meeting of medical men in Lancaster. There were present Dr. David Campbell, Dr. Lawson Whalley, Dr. Edwards, Dr. Morton, Mr. J. Smith, Mr. Christopher Johnson, Mr. Howitt, and Mr. Statter. The old minute reads as follows:—

> It was resolved that it is expedient to establish a society to be called the Lancaster Medical Book-Club which shall consist of the gentlemen present and such medical gentlemen resident in Lancaster as shall be elected hereafter by a majority of the existing members.

Dr. Campbell was appointed the president and Mr. Johnson the secretary. Dr. Campbell was the chief mover in the foundation of the Dispensary—now the Royal Infirmary—in 1781. Dr. Whalley graduated at the University of Edinburgh in 1804 and was physician to the county asylum. Mr. Johnson was a well-known practitioner who succeeded his father and was followed by his son and grandson in the practice. He was an able Latin scholar and did much good work in the early days of the microscope. Mr. J. Smith was surgeon to the prison from 1822 to 1837. The subscription was "one guinea for the first half year, commencing on St. Luke's day, 1823, and half a guinea for every following half year." At first it was simply a book club and the books were sold at the end of each half year. Amongst the earliest mentioned are Chevalier's Lectures, Guthrie on the Eye, Bichat's Anatomy, and Cooke's Morgagni. The minute books giving a continuous account of its doings are in the hands of the present secretary. In 1827 there is a quaint note "that all expenses which may hereafter be incurred in conducting the dissection of executed criminals shall be defrayed from the funds of the society," and in the accounts about the same time there is a payment of 10*s.* 6*d.* to the court keeper for his attendance at the dissections and later 10*s.* 6*d.* to Bond for dissections, and again "to cash paid door-keeper at Robinson's dissection 3*s.*" In this year the first mention is made of a supper which has since been an annual affair. The entry reads: "Fines amounting to £1 2*s.* 11*d.* were collected and by an unanimous vote of the meeting appropriated towards the payment of the supper ordered on the occasion. The evening was spent in the greatest harmony and good order and the party seperated (*sic*) about a quarter before 12 o'clock." Next year we have a resolution that "1*s.* 6*d.* be allowed from the funds of the club towards the waiter," and shortly afterwards we read that "Mr. Johnson having been elected bailiff of the Commons for the borough of Lancaster generously treated the members of the club who were present with a supper, wine, and punch, and the evening was spent in the greatest harmony." After this it became the custom for any member upon receiving an appointment or on getting married to give a supper to his fellow members. The birth of children was marked by the infliction of a fine of two bottles of wine. It is stated that "two bottles of wine were discussed, being fines from Drs. Watson and Moore on the birth of their children." Again, Mr. Langshaw

"washed his child's head in two bottles of wine." In 1843, however, the note is more laconic: "Dr. James Johnson paid his fine of two bottles." The medical library was started in 1841 when it was decided "that a medical library be formed and that in future the books, instead of being sold, should be deposited therein." The committee of the infirmary granted the use of the committee room and this kind permission is continued up to the present time. In 1877 meetings began to be held for the discussion of subjects of professional interest. The first paper was given by Dr. Hall on Experience in Midwifery and the next by Mr. Metcalfe Johnson on the Connexion between Insanity and Ganglionic Irritation. The later history of the club contains little of general interest. The members—33 in number—dine, or rather sup, together each year, meetings for general purposes are held as required, and the clinical section meets once a month during the winter.

THE COST OF SMALL-POX EPIDEMICS.

THE admirable letter on vaccination which Mrs. Garrett Anderson, M.D. Paris, honorary secretary of the Imperial Vaccination League, contributed to the *Times* in the early autumn has, we are glad to see, now been reprinted in pamphlet form. In this shape it should prove very useful to those who are endeavouring to spread over the country the truth with regard to the control of small-pox. We are rapidly approaching the time when definite steps must be taken with respect to the Vaccination Act of 1898 and it is earnestly to be hoped that Mr. Long will adopt a vigorous policy which will result in our following in this particular the example of Germany. Mrs. Garrett Anderson's pamphlet is an eminently common-sense document and it brings out with great clearness the need which obtains for general revaccination if we are ever thoroughly to control our small-pox and to reduce our isolation provision to vanishing point. Although the story told in this pamphlet is for the most part an oft-told tale it will, we fear, have to be narrated in plain terms again and again before the lower classes are able to appreciate the fact that primary vaccination practised in infancy is only protective against death and even attack for an uncertain number of years and that if epidemic small-pox is to become a thing of the past revaccination must be generally and systematically performed at or near the age at which the children in our elementary schools are about to terminate their school career. Until this is done we shall continue to employ both primary vaccination and isolation, neither of which is alone sufficient to prevent periodical and extensive outbreaks of the disease which necessitate our maintaining an elaborate system of accommodation for isolation and ambulance provision during non-epidemic times. Mrs. Garrett Anderson deals at some length with the question of expenditure and for the details our readers must be referred to the pamphlet itself. We may, however, add that the capital sums which have been borrowed to provide isolation and ambulance accommodation in respect of London for small-pox alone have amounted in all up to Sept. 30th, 1902, to £902,757. In other sections of the pamphlet the writer deals with (1) the actual sums raised year by year for the upkeep and working of the hospitals and for the maintenance of small-pox patients in epidemic years over and above the current expenditure in non-epidemic years; (2) the cost to the ratepayers of repaying the accumulated debt or capital account and for the current expenditure in epidemic and non-epidemic years; (3) the economic loss to the community by the loss of life in an epidemic of small-pox; and (4) the indirect economic losses. In contrast with this expenditure, which is concisely set out in the pamphlet before us, attention is drawn to Germany with its 56,000,000 people where, by means of systematic vaccination and revaccination, epidemic small-pox has been banished from the land. In 1901 there were in Berlin, with over 1,888,848 inhabitants, 15 cases of small-pox with three deaths—two being unvaccinated children and one an adult aged 44 years vaccinated only in childhood. In this connexion it may be mentioned that in Germany primary vaccination is performed at a later age than is the case in this country—i.e., in Germany the child must be vaccinated before the end of the year next after the year of birth, a provision by which any given child may possibly be nearly two years old before being vaccinated. But in Berlin there is no elaborate system of hospital isolation such as obtains in London. The few cases of small-pox which occur in the metropolis of the German Empire are dealt with in the isolation ward of the Charité Hospital. With a generally well-revaccinated population and a people alive to the blessings which science can bestow there is no need to dread the proximity of a few cases of small-pox. It is to be hoped that the President of the Local Government Board will, when Parliament next assembles and he introduces his Bill providing for general revaccination on the same lines as primary vaccination, tell the House in some detail how these things are done in Germany. The highest patriotism is not to extol one's country when she is in the wrong but to persuade her to follow the example of other nations who have already found the light. In the matter of revaccination there are many people who would gladly support Mr. Long in a little of the mailed-fist policy.

ALCOHOL IN TROPICAL CLIMATES.

MAJOR FRIBIG, who has served in the Dutch East Indies since 1879 as an army surgeon, is the author of a paper on the influence of alcohol on Europeans in the tropics which was read recently at Aix-la-Chapelle. Acclimatisation, he says, is the result of a new regulation of the course of the blood by the vaso-motor system. The use of alcohol in a hot climate weakens that system and consequently interferes with the acclimature. Up to 1898 every Dutch soldier serving in the tropics used to receive 100 cubic centimetres of wine daily as part of his ration, but in May of that year General van Heutsz, Governor of Atjeh, reduced the allowance by one-half and, moreover, permitted the men who were so inclined to draw its value in money instead of the liquor. The officers, whose daily allowance was half a bottle of red wine per head, were also given a similar choice. From that moment, continues Major Fribig, the soldiers, stimulated by the example of their officers, became total abstainers in large numbers and exhibited a power of resistance against disease and fatigue, as well as an obedience to discipline, such as never before had been seen during any of the wars and expeditions which had occurred in Dutch India. The sick-rate at once began to fall, a remarkable diminution being observable even within the first three months. Major Fribig, who has been a total abstainer since 1894, used formerly to indulge in siestas but never does so now. The mid-day heat has no injurious effect on him and he is able to work during the afternoon with as clear a brain as in the morning. While he was a consumer of alcohol exercise under the sun's rays used to exhaust him very quickly, leaving him bathed in sweat and completely worn out. Now he can support the hardest outdoor work without blenching; although 46 years old he lately took part in an arduous expedition and was able to perform the longest and most toilsome marches with comparative ease. It was the same with the other abstainers but all who adhered to their wine suffered severely and in many cases broke down altogether. Major Fribig knows a great number of officers and men who continue to consume alcohol but are nevertheless able to carry out their duties efficiently in time of peace. They are therefore looked upon as fit for active service but no sooner are they put to the test of hard work

than they succumb. Their vascular systems are unable to withstand the extra strain; weakness or paralysis of the heart renders most of them absolutely unfit for duty. Many victims of the alcohol habit become moral wrecks, losing all energy and initiative. Suicides amongst the troops in Dutch India are invariably consumers of alcohol. Among the diseases which Major Fribig found far more virulent and fatal in non-abstainers than in abstainers are palustral fevers, hæmaturia, cholera, dysentery, cirrhosis of the liver, neurasthenia, cephalalgia, syphilis, and surgical injuries. The authorities in Dutch India are fully alive to the importance of the alcohol question. An influential association has been formed for the encouragement of total abstinence. Under its auspices several recreation rooms have been established in which non-alcoholic refreshments alone are sold, and in the principal garrison town a canteen has been opened where the only intoxicating beverage provided consists of a light wholesome beer. As an addendum Major Fribig, in conclusion, quotes the views of the following authorities: Dr. E Rudel, Dr. Hugo Hoppe, Dr. Livingstone, Captain Hutton, Count Götzen, Emin Pasha, Sir Henry Stanley, General Galliéni, and Lord Roberts. The list could easily have been extended.

TREATMENT OF EMBOLISM OF THE LIMBS BY IMMEDIATE AND PROLONGED MASSAGE.

AT the meeting of the Société Médicale des Hôpitaux of Paris on Nov. 6th M. Pierre Merklen called attention to the treatment of embolism of the arteries of the limbs by massage—a method suggested to him by Professor Paul Berger who thus successfully treated embolism of the posterior tibial artery. When an artery is obliterated by an embolus a proximal clot forms and extends as far as the nearest branch given off by the artery; a distal clot also forms which is more extensive. If it extends very far it helps to prevent the establishment of the collateral circulation. Hence the indication is to break up the embolus or to drive it towards the periphery and to prevent the formation of the secondary clots. This result may be achieved spontaneously. Under the title "Histoire dramatique des Migrations d'un Caillot" Potain[1] related a case in which an embolus was first arrested at the bifurcation of the aorta, producing complete but transitory paraplegia; on the following day it had reached the external iliac artery, leaving the corresponding limb inert; on the third day it reached the popliteal artery, which was shown by the return of pulsations in the femoral artery and the limitation of the coldness and anæsthesia to the foot, which symptoms were transitory. M. Galliard has published a case of embolism of the axillary artery in which there were severe pain in the shoulder and coldness and lividity of the limb; on the third day the pain and circulatory troubles were confined to the hand. The spontaneous disruption of an embolus is possible only when the artery is not entirely obliterated and the volume and consistence of the clot permit it to be carried into narrower channels. Perhaps also the pulsations of the blood help to break up the clot. Deroyer has proposed to break up the clot in embolism of the aorta by intermittent pressure on the bifurcation.[2] M. Merklen related the case of a man suffering from mitral regurgitation which had existed for 22 years. He was suddenly seized with severe pain in one of the lower limbs which became cold and anæsthetic up to a distance of several centimetres above the knee. The pulsations of the dorsalis pedis artery were absent but those of the femoral artery were retained. For nearly two hours M. Merklen and a colleague, relieving one another so as to avoid interruption of the process, practised energetic *pétrissage* of the femoral, popliteal, and posterior tibia arteries until the patient declared that he was relieved. The limb was then wrapped up in cotton-wool. On the following day the relief had remained permanent and heat and sensibility had returned to the limb. The circulation evidently was re-established, although there were numbness and formication and the pulsation of the dorsalis pedis could not be felt until several months later. The patient regained complete power in the limb. Probably the massage acted by breaking up as well as by moving the embolus which was driven towards the periphery to a point where arterial obstruction did not, thanks to the collateral circulation, interfere with the nutrition of the limb.

[1] Semaine Médicale, 1888, p. 65.
[2] Gazette des Hôpitaux, 1880.

STANDARD ELECTRIC CURRENT PRESSURES AND FREQUENCIES.

THE electric currents used in medical practice, including the production of the x rays, being very largely taken from the mains of the various electrical supply companies, many of our readers will no doubt be interested in questions relative to the pressures and frequencies of such currents. At the present time the several electrical lighting and power authorities supply currents at great varieties of pressure and in view of the desirability of obviating this unsatisfactory state of affairs the Engineering Standards Committee, the offices of which are at 28, Victoria-street, Westminster, has made suggestions as to the minimum number of standard pressures which would best meet present commercial requirements and at the same time would utilise to the fullest extent the consumers existing appliances. The committee recommends direct current pressures of 110, 220, 440, and 500 volts, measured at the consumers' terminals, and at the same time it expresses the hope that these pressures will in future be universally adopted by the engineers advising corporations and others distributing electrical energy. On the question of frequencies the recommendations of the committee are (1) that 25 periods per second be the standard frequency for systems involving conversion to direct current by means of rotary converters, for large power schemes over long distances, and for three-phase railway work; and (2) that 50 periods per second be the standard frequency for mixed power and lighting on town-supply mains, for ordinary factory power plants, and for all medium-size power plant where rotary converters are not employed.

THE FEATURES OF THE EPILEPTIC AURA AND ATTACK.

DR. B. ONUF, assistant physician of the Craig Colony for Epileptics, New York State, has published in the *New York Medical Journal* of Oct. 31st an account of the features of the aura and the attack in epilepsy as studied carefully in 800 patients. The object of this investigation was to ascertain as accurately as possible the various clinical phenomena and the order of their sequence. Dr. Onuf states that the nature of the epileptic attack varied with the patient and that "the picture of the symptoms was not at all that given in the text books, to which he had seen almost as many exceptions as patients." The points to which special attention was paid were the epileptic "cry" preceding a fit, the character of the convulsions, the pupillary changes, the tendon reflexes after the fit, and the state of coma induced by the fit. The epileptic cry which ushered in the fit was really a "low, tremulous groan" and when the ear was accustomed to it the cry was readily recognisable. The pupils were not always dilated during the epileptic attack; sometimes they were contracted and insensitive to light and at other times they reacted to both light and accommodation. The convulsions were generally preceded by the well-known epigastric or other sensory aura, the face then grew pale,

the eyes rolled upwards, and with a characteristic cry the patient's body and limbs stiffened in a rigid spasm, in which condition he usually fell down. During this stage of rigidity (tonic spasm) the arms were abducted from the body, the elbows were flexed, and the fingers were tightly and stiffly contracted, while the lower limbs were rigidly extended. The state of tonic spasm lasted about 20 seconds or less; then succeeded violent and jerky movements of the limbs, the head, the jaws, the face, and the trunk (clonic spasms). The saliva collected in the mouth and was churned up into a foam by the spasmodic movements of the tongue which was often bitten between the teeth. During the clonic spasms the patients were liable to be thrown out of bed by the violence of the movements and in many cases had been known to sustain a dislocation of the shoulder or other injury from the fall. The clonic spasms did not always equally affect the two sides of the body; asymmetry of spasm was common. At the close of the convulsive stage the patient passed into a condition of moderate or deep coma. In this stage the senses of sight and hearing were abolished and cutaneous sensibility was impaired in proportion to the depth of the coma, being complete when the coma was profound. The knee jerks were liable to be exaggerated immediately after a fit owing to the condition of exhaustion produced by the epileptic discharge in the cerebral hemispheres, during which time the bulbo-spinal reflex arc was in a state of temporary over-action as regards myotatic irritability, so that the tendon reflexes for a brief period were exaggerated.

CHARITY AND CIGARS.

ACCORDING to the announcement of a daily contemporary a "famous tobacco planter, cigar and cigarette maker, has made an unparalleled offer," which is that during next month he proposes "to set aside one-fifth of the entire returns emanating from his extensive advertising throughout the country for the benefit of hospitals and charities." "Every smoker has thus an opportunity of obtaining high-class cigars, smoking mixture, or cigarettes at an exceedingly low price, at the same time assisting the most deserving of charities." "The great advantage" that this famous tobacco planter claims for his specialities "is the entire absence of arsenic, as all the tobaccos of his products are grown on his own vast plantations on virgin soil only." We certainly think it desirable that cigars should be free from arsenic but we are not aware that this form of contamination of tobacco is by any means the rule. In our experience the presence of even minute amounts of arsenic in tobacco is very rare. In a paper, however, on New Zealand Cancer Statistics published in the *Polyclinic* for August, 1902, reference is made to the presence of arsenic in the tobacco smoked in New Zealand which is obtained from the United States and in the same number of that journal Mr. Jonathan Hutchinson discusses the question of arsenic, cancer, and arsenic in tobacco, but no definite conclusion appears to be drawn as to arsenical tobacco being the cause of cancer. It is, of course, just possible that the tobacco plant might absorb arsenic from a soil fertilised with chemical manure contaminated with arsenic, such as, for example, "superphosphate." We note that the founder of the scheme alluded to above states in a pamphlet that samples were recently sent to many well-known analysts and to THE LANCET, with the result that "every report said 'no trace of arsenic or other poisonous metals can be traced.'" We did not say this. What we did say was: "We have carefully submitted the cigars to a series of tests for the most minute amount of arsenic, but in no instance was there the slightest evidence of the presence of this poisonous metal"; and introductory to this was the following: "The statement has reached us more than once that tobacco leaf occasionally contains arsenic, but we have never been able to substantiate it." In view of this observation we clearly inferred that the fact of the cigars being free from arsenic was not surprising. As a correspondent has suggested, this enterprising tobacco grower has evidently taken his cue from the experiment of the hospital shopping day. The tobacco grower is, we are confident, a well-meaning man but his method is not free from objection. Far better would it be if the smoker practised self-denial and devoted to charity the money thus saved.

THE WARREN TRIENNIAL PRIZE.

THE Warren triennial prize was founded by the late Dr. J. Mason Warren in memory of his father and his will provides that the accumulated interest of the fund shall be awarded every three years to the best dissertation, considered worthy of a premium, on some subject in physiology, surgery, or pathological anatomy, the arbitrators being the physicians and surgeons of the Massachusetts General Hospital. The subject for competition for the year 1904 is on some special subject in physiology, surgery, or pathology, so that the whole range of medicine is at the disposal of the candidate. A high value will be placed on original work. Dissertations, which must be legibly written and bound so that they can be easily handled, should be sent to Dr. Herbert B. Howard, resident physician at the Massachusetts General Hospital, Boston, before April 14th, 1904. The name of the writer must be inclosed in a sealed envelope. The amount of the prize for the year 1904 will be $500.

FRACTURE OF THE TIBIA AND FIBULA SIMULATING POTT'S FRACTURE.

IN the *Scottish Medical and Surgical Journal* for October Dr. G. T. Beatson has published an important case showing that a fracture of the tibia and fibula may easily be mistaken for Pott's fracture and demonstrating the value of radiography in revealing mistakes in diagnosis which otherwise would never come to light. A youth, aged 18 years, injured his left ankle in falling from a height of 10 or 12 feet. All the characteristic features of an extreme form of Pott's fracture were present. There were considerable swelling from effusion of blood, great outward displacement of the foot, a marked prominence on the inner side of the joint, and backward displacement of the heel. Dupuytren's splint was applied on the inner side of the leg and the deformity apparently was corrected. Two or three days later the foot did not seem to be in normal relation with the internal malleolus. Skiagraphy showed an oblique fracture of both bones of the leg a little above the ankle. Yet there were a prominence on the inner side of the ankle, eversion of the foot, and backward projection of the heel. The prominence, however, was not caused by the internal malleolus but by the lower end of the upper fragment of the tibia, while the eversion of the foot was not caused by displacement of the astragalus but by the foot being carried outwards with the fractured bones. Resection of the ends of the upper fragments of the bones and wiring suggested itself, but the pressure of the splint on the tightly stretched skin, though carefully applied, had caused sloughing. Asepsis could not therefore be guaranteed and suppurative arthritis of the ankle might be produced if an operation was performed. The leg was placed on a posterior splint with a foot-piece at right angles. Passive movements of the ankle were soon commenced. Five months later the patient could walk well and the movements of the ankle were excellent but there was considerable deformity. Dr. Beatson suggests that some of the cases diagnosed as Pott's fracture in which recovery did not take place with the

symmetry which some writers say should always follow were of this nature and that the surgeon was unjustly blamed. The case emphasises the importance of the routine skiagraphy of fractures, even in cases which apparently are characteristic examples of common fractures.

FOOD ADULTERATION IN IRELAND.

THE King's visit to Ireland, the recent Land Act, and to a certain extent the fiscal controversy have again drawn special attention to that really charming country not only as a place for permanent residence but as a unique field for holiday rambling. Sportsmen, admirers of scenery, and students of customs and manners, it is well known, may find much to see and to appreciate, though sometimes it must be confessed they have to be content to take things rather in the rough. Whilst admitting, however, the claims of Ireland as a health and pleasure resort we must deplore the evidently remiss way in which the adulteration laws are administered. Cases have been brought to our notice in the neighbourhood of a country town not far from Dublin in which visitors were not only overcharged but were supplied with milk deprived of one-half its fat and with 20 per cent. added water—in fact, stuff we might expect to find sold in the slums of a great city and not in a country where the farm is everything—and there is reason to believe that this is a fairly common practice. It is quite clear to anyone with experience of local matters in Ireland that the analytical chemist is not sufficiently in evidence and we think it high time that the Institute of Chemistry should give its attention to the working or non-working of the system of cumulative appointments by which merely a few guineas a year are added to the income of some distinguished man. Skim milk, watery butter, diluted whisky, and numerous other frauds prevail extensively in the country districts. All this might be remedied by each county council appointing an analyst holding the qualification of the Institute of Chemistry (which, by the way, claims authority in Ireland) and providing him with a reasonable field for his duties which they should see were carried out. We are convinced that such appointments would soon check the scandals which we have mentioned and would benefit not only visitors but the inhabitants of the country.

OVERCROWDING IN BETHNAL GREEN.

THE action of the Bethnal Green borough council in prosecuting for overcrowding is to be warmly commended. The council took action against 12 persons, all of them aliens and most of them ignorant of English, under a by-law made by the council under the Public Health (London) Act to prevent overcrowding of sleeping rooms. The state of things revealed by the proceedings bears witness that the borough council cannot be accused of hyper-sensibility with regard to their view of what constitutes overcrowding. In some cases the defendant, tenant of a single room, had sublet the room and men and women were herding together, sleeping sometimes in boxes or on the floor. In one case the tenant, Hyman Inberwitch, occupied a room about 14 feet square by eight feet in height as a sleeping apartment for himself, his wife, another woman, his son aged 19 years, and a girl aged 13 years, there being also a baby some months old. His other room, about 13 feet by eight and a half feet, he also sublet and it was found to be occupied by five adult males. The prosecution resulted in fines, with imprisonment in default, being imposed. The alien population in the Bethnal Green district has absorbed whole streets and the overcrowding evil reached such a point that the borough council appointed extra inspectors and had midnight visits paid with a view to prosecution. It may seem a terrible thing to have to prosecute the very poor for offences which are the direct outcome of the pinch of poverty. The general good, however, must be aimed at and conditions more provocative of all kinds of immorality as well as every species of insanitary evil can hardly be imagined than those which the Bethnal Green borough council has thus determined to quell. Under what conditions can these wretched aliens have lived in their own land if they are willing to exchange them for such terrible circumstances in a strange country?

FIRE AT A BOARD SCHOOL.

ON Wednesday, Nov. 25th, half an hour after the children had begun lessons, the Shaftesbury-road Board School East Ham, was discovered to be on fire. Very fortunately the outbreak of the fire was in a room on the top floor and not at the bottom of the building. On this top floor were 624 boys and the headmaster, Mr. E. Richardson, at once told his assistants to take the boys downstairs into the playgrounds. The boys left in perfect order, as did also 623 girls who were on the floor below and 630 infants who were on the ground floor. The teachers in these two last departments were assisted in getting the children out by a number of policemen. The fire was got under in three hours, the damage being practically confined to the top floor. It is appalling to think of what might have happened had the fire broken out in a ground-floor room or had there been any panic, and the greatest credit is due to all concerned, both children and teachers, for their admirable behaviour in the face of a great danger. Fire is a circumstance which tries the nerves of the strongest, panic is particularly likely to occur, and what panic combined with fire means the records of the Ring Theatre in Vienna, the Paris Charity Bazaar, and the appalling calamity which happened some 30 years ago at a church in Mexico show only too well.

DIARRHŒA AND POLLUTED WATER.

OF late years attention has been called from time to time to outbreaks or epidemics of typhoid fever through contaminated water-supplies, such as those at Maidstone and King's Lynn, but a widespread epidemic of diarrhœa with a serious mortality commencing and ending suddenly as the cause came into operation and was subsequently removed on being discovered, like that recently recorded by Dr. J. C. Thresh, is extremely rare if not almost unprecedented. It commenced suddenly on July 25th of the present year and ended as abruptly on August 25th, having lasted just one calendar month, during which no fewer than 1400 persons of both sexes and all ages and classes were attacked and 14, of whom 13 were young children, died. The area comprised a portion of the borough of Chelmsford and a single village within the limits of the rural sanitary district, each of which derived its water-supply from the same source, in which no other section of the population, urban or rural, shared, and beyond the limits of the incriminated supply there was no excess of diarrhœa. The present year being remarkable for its unusually low diarrhœal death-rate served to emphasise the local incidence. An inspection of the waterworks showed that the supply was derived from several deep wells and distributed over distinct areas. In this particular locality the water was pumped from a deep and unimpeachable well into a small and uncovered reservoir. But the reservoir, instead of being surrounded by a parapet, was not raised above the level of the surrounding ground and was therefore exposed to pollution by surface drainage and the entrance of storm waters during heavy rains. This actually took place in the storm of July 23rd, or two days prior to the occurrence of the first cases, the source of the trouble being evidently an adjoining plot of garden ground manured with road sweepings and the like. Though not followed by such grave consequences the pollution of the tank or reservoir

must have often occurred before, for it contained a deposit of soil and worms. While filter beds must be open to admit of the growth of the green felt-like film of confervoid algæ, to which their purifying action is almost wholly due, storage reservoirs, whether of unfiltered well or filtered river water, are better covered, especially should the water contain much calcium carbonate, if only to prevent the growth of the green malodorous chara, but if for any reason this is deemed superfluous a parapet should never be dispensed with, and this applies even more strongly to private than to public wells, they being constantly polluted from above.

ARCHIVES OF THE MIDDLESEX HOSPITAL.

UNDER this title it is proposed to publish a series of volumes with the object of making known the work accomplished at the Middlesex Hospital in the wards, laboratories, and special departments. The publication will be directed by an editorial committee and will contain contributions on subjects connected with clinical medicine and surgery, the investigation of cancer, research carried on in the clinical and pathological laboratories, and the work of the special departments of the hospital and school. It is intended to issue not less than four volumes annually. This collection of clinical records and the results of scientific research cannot fail to be of value. We wish the new publication every success.

SIR JOHN BLUNDELL MAPLE.

THROUGH the death of Sir John Blundell Maple the community at large is the poorer by an able and useful citizen. A successful employer of labour, his firm counted much for the fact that, so far as furniture is concerned, our fiscal relations with foreign countries leave little to be desired. A hard-working politician, on questions where his personal knowledge enabled him to speak with decision he was not afraid to deviate from party lines, as his action in respect of the remount scandals and his early favour of the "fair trade" movement showed. A supporter of our most popular national sport he earned a reputation on the turf that was due alike to his munificence and his strict integrity. But the special regret which we and all our readers feel for Sir John Blundell Maple's comparatively early death arises from the fact that he was a bountiful benefactor of medical charities As manufacturer, as politician, and as sportsman (in the best sense of the word) he bulked largely in the public eye, but by his noble donation which resulted in the entire rebuilding of University College Hospital—a donation which amounted to upwards of £150,000—he placed himself in the select list of the great benefactors of the metropolis.

THE TREATMENT OF PLAGUE WITH PROFESSOR LUSTIG'S SERUM.

DR. N. H. CHOKSY of Bombay is special assistant health officer in charge of Arthur-road and Maratha plague hospitals and his work has been many times referred to in our pages especially in connexion with his advocacy of Professor Lustig's serum treatment of the disease. He has strenuously upheld this cause both orally and with his pen and he has now reprinted his papers and reports in book form.[1] The preface of this volume is dated August, 1903, and the contents are divided into ten sections with appendices A, B, and C. As there are thousands of deaths from plague in India every week it is evident (1) that the best form of treatment hitherto attempted is no more than palliative, and (2) that as the disease when fatal runs an extremely rapid course a statistical comparison of the various palliatives with one another must be profoundly influenced by the manner in which the cases are selected either for treatment or for tabulation. In THE LANCET of June 2nd, 1900, p 1608, our special correspondent in India referred to this aspect of the question and our issue of July 28th, 1900, p. 291, contained a long letter from Dr. Choksy in reply. From this letter, the greater part of which is reprinted in the volume now under consideration, we learn that Professor Alessandro Lustig (who holds the chair of general pathology in the University of Florence) reached Bombay in June, 1897, after the close of the first epidemic of plague and that he treated a few sporadic cases with a serum which he had brought from Florence. The results being satisfactory, when the second epidemic broke out he offered to send serum from Florence, and accordingly Dr. (now Professor) Galeotti and Dr. Polverini arrived in Bombay with a quantity of serum in March, 1898. The subsequent course of events may perhaps be most conveniently set forth by taking the totals of the columns of a table published at p. 110 of Dr. Choksy's book. This chapter or section is headed "Correct Statistics of the Serum Treatment"; the table refers to the Arthur-road Hospital; the period elapsed is divided into five stages, the first of which begins in March, 1898, and the last ends in May, 1901. Of serum-treated patients the total tabulated are 1089, with 715 deaths and of the patients under ordinary treatment the total tabulated are 2406, with 1939 deaths. The mortality among those treated with serum is therefore 65·6 per cent., while among those under ordinary treatment it was 80·1 per cent. Dr. Choksy compares the mortalities under the two conditions for each of the five periods separately. The aggregate result shown in the above figures is that there is a difference of 14·5 per cent. in favour of the serum treatment.

[1] The Treatment of Plague with Professor Lustig's Serum. By N. H. Choksy, M.D. *honoris causâ* Freiburg, Germany. Bombay: The Indian Textile and Municipal Journal Company, Limited, Metan-street. 1903. Price 5 rupees. Pp. viii., 166.

THE Purvis Oration of the West Kent Medico-Chirurgical Society will be delivered at the Royal Kent Dispensary on Friday, Dec. 4th, at 8.45 P.M., by Dr. J. Rose Bradford who has announced as his subject the Value of Symptoms in Diagnosis. After the oration a conversazione will be held at which there will be exhibitions of x-ray, high-frequency electrical, acoustic, and vibro-therapeutic apparatus, Finsen lamps, radium, therapeutic preparations, surgical instruments, and dressings.

Sir Henry Burdett, will open a discussion on London Hospitals and Medical Schools and their Sites at a meeting of the Hospitals Association on Thursday, Dec. 3rd, at 4.30 P.M., in the board-room of Charing Cross Hospital. Mr. Thomas Bryant (consulting surgeon of Guy's Hospital) will take the chair and tickets may be had on application to Mr. Sydney Phillips at St. Thomas's Hospital.

THE autumnal dinner of the Durham University Medical Graduates' Association will take place on Thursday, Dec. 3rd, at the Café Monico, Piccadilly-circus, London, at 7.30 P.M., under the presidency of Dr. Frederick Spicer. Full particulars may be obtained from the honorary secretary for the south, Dr. T. Outterson Wood, 40, Margaret-street Cavendish-square, W.

A TELEGRAM from the officer administering the Government of the Mauritius, received at the Colonial Office on Nov. 20th, states that for the week ending Nov. 19th there were 71 cases of plague and 32 deaths from the disease.

THE Bishop of Rochester has consented to inaugurate the opening of the Belgrave Hospital for Children, Clapham-road, for the reception of patients on Dec. 1st, at 3.30 P.M.

THE annual dinner of the British Gynæcological Society, which was to have been held on Nov. 27th, has been unavoidably postponed.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ANNUAL MEETING OF FELLOWS AND MEMBERS.

THE nineteenth annual meeting of Fellows and Members of the College was held on Nov. 19th. There were present 55 Fellows and Members, including nine members of the Council.

The PRESIDENT (Mr. JOHN TWEEDY) occupied the chair and opened the proceedings by presenting the annual report of the Council. He mentioned that it had been supplied under the new rules to 3187 Members and 593 Fellows. The report was in many ways fuller than formerly and supplied more information as to the work of the Council during the year. On several points he would speak more particularly. The proposed combination with the University of London for the purpose of granting a degree to the holders of the Membership of the Royal College of Surgeons of England and the Licentiateship of the Royal College of Physicians of London had received much attention from the Council. There was a very natural desire on the part of many persons for facilities in London for the granting of a degree in medicine and a clause in the charter of the University of London appeared at first sight to permit the University to combine with the two London Colleges for this purpose. Delegates from the two Colleges met and discussed fully the question of the practicability of such a union, but after considerable discussion it was recognised by the majority that the clause in question, while allowing union with the University for the purpose of examination, did not permit any union for the purpose of granting a degree. Therefore it was decided that it was not at present advisable to make any attempt in this direction.

Another matter of importance was that of the first examination of the Conjoint Board. He did not wish to anticipate the discussion which would take place, for one of the motions on the agenda was concerned with this very question. He would, however, say that this subject had had the very serious consideration of the Council. Whether right or wrong the two Colleges had come to the decision to abide by the policy already adopted, though they were at all times ready to receive and to consider suggestions for improving any of their examinations.

The Brussels conference regarding venereal diseases had also brought an important matter before the Council. The so-called State regulation of vice had been considered at the conference and the representative of the College at that congress had reported that the almost universal trend of opinion was towards the state of affairs which obtains over almost all the British Empire.

Post-mortem examinations in inquest cases had lately been receiving a great deal of attention and much friction had occurred between one coroner and the medical men in his district. The London County Council had endeavoured to arrange that post-mortem examinations in certain special cases should be intrusted to well qualified pathologists and had communicated with the Council of the College on the matter. The Council had carefully considered the subject and had felt that on the one hand there was much to be said in favour of still intrusting post-mortem examinations to the medical man who had been attending the patient, and the fee though small was yet a consideration; on the other hand, there were many reasons for calling in a pathological expert for special cases, where special knowledge might be required, and for this the fee of two guineas offered was totally inadequate. In these circumstances the reply of the Council of the College to the London County Council had been very general and guarded.

The physical disability of recruits was another subject which received the very careful consideration of the Council. By the request of the Secretary of State for Home Affairs the Council had taken into consideration a circular prepared by the Director-General of the Army Medical Service on the reported physical disability of the recruits. The reply of the Council was printed in the report and was to the effect that there was no reason for thinking that there had been any real deterioration in the national physique, though, of course, there was room for improvement in this respect.

For the first time a table of the attendances of members of the Council had been included in the annual report and it gave some indication of the very great amount of time and thought which the members of the Council devoted to the affairs of the College, though they were all busy men. For instance, Sir Henry G. Howse, the late President, had attended in all 45 meetings of the Council and committees.

In reply to a question whether the Council was in favour of the medical man who had been in attendance on a patient being present at the post-mortem examination and inquest and receiving a fee in addition to the pathological expert who had been called in to perform the necropsy the President stated that the reply of the Council had been guarded and dealt merely with the general principle; the details would have to be considered later and a committee of the Council was about to be appointed.

In reply to a question concerning the section of the report dealing with the removal of a Member the President explained that the removal of a Member from the list of Members did not necessarily entail the removal of his name from the Medical Register, nor did the removal of the name of a Fellow or Member of the College from the Medical Register necessarily lead to the removal of his name from the books of the College.

In reply to a suggestion that one or more general practitioners should be appointed to serve on the committee of the Council on the relation of medical men to the coroner's court the President said he feared that this could not be done but he was sure that the greatest care would be taken by the members of that committee to obtain the views of those in general practice on that point.

Surgeon-Major J. INCE proposed a vote of thanks to the Council for its report which was carried *nemine contradicente*.

Dr. THOMAS MORTON then brought forward the first motion:—

That this meeting once more affirms the claim of the Members to representation on the Council on grounds of historical right, justice, and expediency.

He commenced by congratulating the President on the well-deserved honour to which he had attained and expressed the gratitude which the Members felt to the President for all that he had done on their behalf in the past. The case in favour of the claims of the Members had been stated over and over again and must be familiar to all present. The Members claimed to be an essential part of the body corporate of the College and to represent the commonalty of the old body. The privilege of the franchise was that which they claimed and which had been taken away from them by the iniquitous charter of 1800, for by that charter the Council was made self-elective. The charter of 1843 was only a half measure, inasmuch as it gave to a few of the Members under the title of Fellow the right which belonged to the whole body. The culture of the average Member at the present day was equal in all respects to the culture of the Fellow of 60 years ago. The time had now arrived for the final step—namely, the extension of the franchise to the Members. If the College were being constituted now it would not be possible that the Members should be entirely passed over. Many Fellows were certainly in favour of giving the Members representation on the Council. The Members were only asking for the power of appointing at most a quarter of the Council and at no time therefore could the Members' representatives have a majority. The dangers of the proposed change were imaginary and the advantages were enormous.

Mr. E. DENNIS VINRACE seconded the motion. He pointed out that the claims of the Members were for a restitution of rights of which they had been wrongfully deprived. The present constitution was anachronistic and anomalous. The change was expedient and would lead to more coördination between the Members and the Fellows. He was sure that there would never be any peace for the Council till this reform was granted.

Mr. F. W. COLLINGWOOD claimed that the members of the Council as at present constituted could not possibly know the needs of the general practitioner and therefore the Members should be represented on the Council.

The motion was put to the meeting and carried *nemine contradicente*.

The second motion was brought forward by Mr. JOSEPH SMITH. It was as follows:—

That the Council is respectfully requested to receive a deputation of Members to confer on the subject of the foregoing resolution.

He referred to the pamphlet written by the President many years ago in favour of the claims of the Members and expressed the opinion that the time had now come for the termination of the agitation. The addition of some

Members of the College to the Council would give dignity to that body and a president chosen by a council so constituted would indeed be the President of the whole College.

Dr. G DANFORD THOMAS, in seconding the motion, expressed the hope that such a conference as this motion suggested might lead to a settlement of the question. That there were difficulties was no argument against attempting to settle the matter. Both sides might be willing to give way a little in order to arrive at a satisfactory result.

Mr. J. FEARNLEY thought that a deputation would be useless.

The motion was carried *nemine contradicente*.

The third motion, proposed by Dr. W. G. DICKINSON, was as follows:—

> That this meeting regrets the inadequate information given to Fellows and Members regarding the proceedings of the Council and is of opinion that the complete minutes of the Council meetings should be accessible to any Member of the corporation at reasonable hours.

He acknowledged that it was true that an abstract of the minutes of the Council was suspended in the hall of the College in a bad light but this was not sufficient. The details given were not enough, for the Members wanted to know all that the minutes of the Council contained.

Mr. J. BRINDLEY JAMES seconded the motion and urged that the Members would like to know the reasons why the Conjoint Committee decided not to enter into negotiations with the University of London.

The PRESIDENT pointed out that the minutes suspended in the hall were the full minutes of the Council with only such omissions as were absolutely indispensable. With regard to the negotiations about the union with the University of London the full record had appeared in the annual report of the Council. As to inspection of the minutes by any Member of the corporation he might point out that sometimes charges brought against Members of the College had to be considered by the Council and in some cases these charges could not be substantiated and therefore it was very undesirable that such accusations should be made public. With such exceptions as these the full minutes were suspended in the hall. The introducer of the motion had complained that the minutes were placed in a dark corner of the hall; this was, of course, quite unintentional and if a better position could be found the minutes should be placed there.

After hearing the explanation of the President Dr. DICKINSON requested leave to withdraw the motion. By the permission of the meeting this was done.

In the absence of Mr George Brown Mr. H. NELSON HARDY brought forward the fourth motion:—

> That this meeting considers it unfortunate that the Council should have placed before it their reply to a report from the inspectors of the General Medical Council without publishing at the same time the report itself and further trusts that the Council will take immediate steps to bring the dispute with the General Medical Council to an amicable settlement.

He said that the dispute had now been going on for ten years and it was entirely due to the Council of the College permitting a part of medical education to be carried on in secondary schools.

Mr. J. C. SMITH seconded the motion and expressed the opinion that it was a great pity that the Council of the College should run counter to the opinion of the General Medical Council, the supreme body in medical education. He could see no advantage in any way in the course pursued by the Council of the College and by the Royal College of Physicians of London.

The PRESIDENT thought it would be best if he were to explain the present situation. The Council of the College had always been most careful in what it had done in this matter. It had thought it only reasonable that chemistry, physics, and biology should be studied before passing the preliminary examinations, or at least before the student began his more strictly medical studies, and this arrangement gave him more time to devote to the studies more closely allied to his future work. That this arrangement was really beneficial to the scientific education of the country had been recognised. Many eminent scientific men had expressed the highest opinion of the value of the action of the College and one had said that it had contributed greatly to the general study of science in England. The report of the visiting inspectors of the General Medical Council had certainly been unfavourable, but their opinion was still more unfavourable of some other examining bodies. In fact, the general report made by the visitors stated that there was only one examining body which made an approach to a satisfactory attempt at an examination in chemistry and that was the Conjoint Board of England. In its opposition to the action of the General Medical Council the Royal College of Surgeons of England and the Royal College of Physicians of London were absolutely at one.

Mr. COLLINGWOOD opposed the motion, mentioning that in the examinations for the services the percentage of candidates from the College of Surgeons who failed was less than from almost any other examining body.

Dr. DICKINSON thought that as this was a matter affecting the external relations of the College it should have been brought before the Members.

Sir HENRY G. HOWSE said that the Council had been blamed for allowing scientific study to occur before registration but it was really for the benefit of the student. At first the Conjoint Board had recognised those schools which were recognised by the Science and Art Department, but the Council soon began to investigate by personal inspection the recognised schools and many had been struck off the list. The requirements of the Conjoint Board were great and certainly no other examining body took such pains to insure the high character of the teaching bodies it recognised.

When the motion was put to the vote it was lost by 9 votes to 8.

Mr. JOSEPH SMITH then proposed a vote of thanks to the President for presiding at the meeting He also expressed his regret at the death of Sir Robert M. Craven who was a very regular attendant at these annual meetings and suggested that a vote of condolence should be sent to his family.

The PRESIDENT, in acknowledging the vote of thanks, stated that he would carry out the wish of the meeting by conveying to the members of Sir R. Craven's family the vote of condolence.

THE INTERNATIONAL SANITARY CONFERENCE.

MEETING IN PARIS.

THE International Sanitary Conference has been working with but little respite for more than a month. The discussions were long and arduous and the result, we are officially informed, is to be kept secret until after Nov. 30th. There now only remains the task of drawing up the text of the agreement which has been accepted in principle. This work is left in the hands of the secretarial staff while most of the delegates have returned to their respective countries but they are all to assemble again in Paris on Nov. 30th. To some delegates this opportunity of consulting their Governments is especially welcome. As it was determined that no communication should be made to the press concerning the nature of the debates and the resolutions adopted we cannot guarantee the absolute accuracy of such information as, notwithstanding this determination, we have been able to obtain. Still it would appear that all the proposals made were not adopted. A certain number of resolutions have been unanimously approved and there will be no difficulty in their embodiment as part of the international obligations which it is sought to impose. Then there were other propositions which were approved by all the delegates in principle but to which, nevertheless, some of the delegates did not venture to pledge their Governments. Finally, there were other proposals that were looked upon as so far-reaching and as involving such important issues that a minority of delegates did not dare to vote either for or against them and were anxious to refer these questions to their Governments. In regard to the nature of the problems involved it may safely be said that the measures to be taken to prevent the spread of cholera and plague from country to country held a prominent place. The advanced school of sanitarians has demonstrated more and more conclusively that impediments to communications can be reduced to a minimum; in other words, strenuous efforts were made to abolish what little remains of the old quarantine practices. But this tendency, it is said, met with energetic resistance on the part of the representatives of Turkey, Greece, and Bulgaria. The Turkish empire has ports on three different seas and a multiplicity of ports that are close to plague-stricken countries. The Greeks plead that they have always enforced quarantine and, with the one exception necessary to prove

the rule, have always escaped epidemics. During the Crimean war the quarantine regulations could not be applied and then they had cholera. Ever since the independence of Greece and its constitution as a kingdom the country has not been infected by persons coming from abroad. As for the argument that the period of incubation is only five days and that therefore the passengers and crews are effectively in quarantine during the journey, for the period of danger is over by the time when they arrive in port, this does not apply to Turkey, Bulgaria, and Greece. These countries are farther east and can be reached in less than five days from places where plague exists. Then, again, if one of these three Powers yielded it would be quarantined by the other two. The question of rats as the transmitters of plague was also discussed at length and in this matter unanimity existed. Everyone approved of the measures which it was proposed to take against these dangerous vermin. Then there was a debate on mosquitoes and yellow fever and, finally, it has been recognised that a permanent international sanitary bureau might render considerable service. What would be the precise functions of such an institution has not yet been stated but it is generally agreed that its headquarters should be in Paris. Undoubtedly it would be difficult to find a more pleasant city or one of easier access from all parts of the world.

ASYLUM REPORTS.

Glasgow District Asylum, Woodilee (Report for the Year ended May 15th, 1903).—The average number of patients resident during the year was 890, comprising 468 males and 422 females. The admissions during the year amounted to 280—viz., 139 males and 141 females. Of these 204 were first admissions. Dr. Hamilton C. Marr, the medical superintendent, states in his report that the increase of lunacy in the agricultural district and city of Glasgow is not alarming. "It must be borne in mind that there is a constant flow from the country districts to the city which has a potent influence on the rate of the production of insanity. The young and strong, both in mind and body, seek the city and add to its mental health, leaving behind them, unfortunately, in the country the infirm and incapable. Hence the apparent anomaly in the fact that the Highlands of Scotland have a very much relatively larger insane population than populated districts such as Glasgow, where the causes of insanity are rife." In 31·3 per cent. of the patients admitted there was a history of intemperance. "While the victims of alcoholism are a source of misery and degradation to others, it must be remembered they are often the source of the production of insanity in others. ..... The idiot, the epileptic, the mentally weak and unstable, are all legacies to his country of the victim of alcoholism." The number of patients discharged as recovered during the year amounted to 128—viz, 59 males and 69 females—or 14·4 per cent. of the average number resident. The deaths during the year amounted to 99, or 11·1 per cent. as calculated on the same basis. Of the deaths eight each were due to epilepsy and cardiac disease, ten to pneumonia, 15 each to senile decay and general paralysis of the insane, 17 to pulmonary and other forms of tuberculosis, and the rest to other causes. The Commissioner in Lunacy states in his report that the patients were well-dressed and suitably provided for, that the wards and day-rooms were bright in appearance, and that the medical case-books were well and carefully kept. A sanatorium for consumptive patients was opened on Dec. 18th, 1902; the buildings are situated in close proximity to the asylum and are lighted by electricity and have all the needful equipment for carrying out the open-air treatment of patients. The committee of management states in its report that two additional farms have been added to the asylum estate to produce sufficient crops to meet the requirements of the institution and to provide for the healthful employment of a larger number of patients.

Salop and Montgomery Asylum (Annual Report for 1902).—The average number of patients resident during the year was 779, comprising 355 males and 424 females. The admissions during the year amounted to 225—viz., 105 males and 120 females. Of these, 142 were first admissions. Dr. D. F. Rambaut, the medical superintendent, states in his report that a large number of patients of both sexes have been usefully employed during the year. "Knitting by machinery has been introduced and mat-making has been commenced, while a sewing room has proved a marked success. A further extension in this direction would prove economical and beneficial to the patients." The health of the institution suffered severely from an epidemic of influenza which appeared in the spring of 1902. 259 patients and many of the attendants were attacked and many patients died from this disease. The infirmary wards proved quite inadequate for the number of those attacked and it was necessary to employ temporarily another assistant medical officer and several attendants. The number of patients discharged as recovered during the year amounted to 83—viz, 40 males and 43 females, or 10 6 per cent. of the average number resident. The deaths during the year amounted to 144, or 18·5 per cent. as calculated on the same basis. Of the deaths two were due to renal disease, four each to epilepsy and pneumonia, five to colitis, seven to cerebral hæmorrhage, 11 to general paralysis of the insane, 13 to senile decay, 14 to pulmonary and other forms of tuberculosis, 18 to cardiac disease, 44 to influenza, and the rest to other causes. The death-rate was the highest ever recorded in the history of the asylum and this was largely due to the severe epidemic of influenza in the spring of 1902. During the year the cost of maintenance of patients per week has been 9*s.* 3½*d.* per head, as against 8*s.* 11½*d.* per week during the previous year. "The increase is due chiefly to the increased price of meat, to the improvement of the dietary of the attendants, and to the reduction of the average number [of patients] resident." The farm and garden account shows a profit of £507 13*s.* as compared with a profit of £243 8*s.* in the previous year. The Commissioners in Lunacy state in their report that the wards and dormitories were, on the whole, in very good condition and well ventilated, that the general health of the institution was good, that the patients were orderly in their behaviour and neat in their dress, that the dietary of the patients was satisfactory both in quantity and quality, and that the medical case-books were well and carefully kept. "The means of combating an outbreak of fire and of securing the escape of patients are by no means satisfactory" and various improvements and alterations are suggested by the Commissioners. The committee of management states in its report that the sum of £498 7*s.* was expended in additions, alterations, and repairs.

Roxburgh, Berwick, and Selkirk District Asylum (Report for the year ending May 15th, 1903).—The average number of patients during the year was 321, comprising 142 males and 179 females. The admissions during the year amounted to 78—viz., 39 males and 39 females. Of these 65 were first admissions. Dr. J. Carlyle Johnstone, the medical superintendent, states in his report that owing to the want of accommodation at the asylum, "admission continues to be refused to all private patients, except in cases of emergency and in cases which would otherwise be placed on the rates and sent in as chargeable to parishes." It frequently occurs that persons who were at first quite willing to pay for their relatives as private patients show a marked unwillingness to contribute anything towards the cost of their maintenance when they have once been admitted as patients of the "pauper" class. Dr. Johnstone is of opinion that provision ought to be made in the district asylum for every case of insanity occurring in the district in which a sum can be paid sufficient to meet maintenance and expenses, with a reasonable addition for interest on capital, deductions being made in deserving and necessitous cases. Hereditary predisposition to mental disorder was ascertained to exist in 45 per cent. of the cases admitted, while in 36 per cent. of the cases suicidal tendencies were present. The physical condition of the patients was "bad in 59 cases and very bad in five cases." In 50 per cent. more or less serious physical disease was present. The number of patients discharged as recovered during the year amounted to 29—viz., 14 males and 15 females, or 9 per cent. of the average number resident. The deaths during the year amounted to 27, or 8·4 per cent. as calculated on the same basis. Of the deaths three were due to senile decay, six each to cardiac disease and general paralysis of the insane, eight to pulmonary and other forms of tuberculosis, and the rest to other causes. The general health of the inmates has, on the whole, been fairly good. Electric lighting has been recently established throughout the building and the brief trials made have given every satisfaction. "The question of the adequacy of protection from fire in the asylum has received the careful consideration of

the board of management and it has been decided to carry out various works with the view of making better provision for the escape of the inmates and for checking the spread of fire in the event of an outbreak." The Commissioner in Lunacy states in his report that the asylum was in good order, that the appearance of the wards and day rooms was bright and cheerful, that the patients showed a general appearance of contentment and of kindly and judicious care, and that the medical case-books were well and regularly kept. The committee of management states in its report that the sum of £10,119 4s was spent during the year upon the asylum buildings, improvements, furniture, and electric light installation.

MEDICINE AND THE LAW.

A County Court Judge and the Dentists Act.

AT Wellington, Somerset, before his honour Judge Beresford, a point was raised in the course of administration proceedings under section 122 of the Bankruptcy Act, 1883, which the learned judge appears to have treated in a manner fortunately unusual. The individual whose insolvency formed the subject of inquiry was a married man with a family carrying on business as an insurance agent. His debts amounted to £37 18s. 2d. and among these was scheduled a claim for £4 10s by the "English and American Artificial Tooth Company." To the inclusion of this item one of the other creditors, Dr. William Spettigue, a medical man practising at Wellington, objected on the ground that the creditors named were not upon the Dental Register and therefore could not recover for the services in respect of which they claimed. His honour Judge Beresford's criticism upon Dr. Spettigue's letter in which this point was put forward was that "this learned gentleman had better have become a lawyer," and the reporter who chronicles the judicial humour in the local newspaper with the usual parentheses of "laughter" and "more laughter" records that he further said "playfully" to the registrar, "I think you had better impound this letter as one of the curiosities of the court," after which he proceeded to admit the "English and American Artificial Tooth Company" to the list of creditors. It would be interesting to know how his honour Judge Beresford would justify himself in holding up to derision a medical man or any other suitor before him because he claimed to be acquainted with the law directly affecting his own profession. It would also be instructive to know upon what grounds the "English and American Artificial Tooth Company" was allowed by the learned county court judge to rank as creditors unless it were upon the ground that it was owed a debt which it could have recovered by legal process. Under the fifth section of the Dentists Act, 1878, "a person shall not be entitled to recover any fee or charge in any court for the performance of any operation or for any dental attendance or advice unless he is registered under this Act or is a legally qualified medical practitioner." In the newspaper report of the incident before us there is no mention of any evidence as to whether the "English and American Artificial Tooth Company" was, in fact, an individual or a corporation or as to whether it was suggested that a "company," either registered or not, can recover for dental work where an individual cannot. There does not appear to be any legal decision placing an association of individuals upon any different footing from a single person in this respect. There is, indeed, the case of the Pharmaceutical Society *v.* the London and Provincial Supply Association,[1] decided by the House of Lords in 1880 in which considerable argument took place as to the use of the word "person" in Acts of Parliament such as the Dentists Act, and in which it was held that whether the word "person" in a statute can be treated as including a corporation must depend upon a consideration of the object of the statute and of the enactments passed with a view to carry that object into force. This, however, was a case in which the Pharmaceutical Society had sued for penalties an association of shareholders registered as a joint stock company, all of them unqualified to deal in poisonous drugs except one, a qualified person, who conducted the business of a druggist on behalf of the others. Having laid down the law with regard to the use of the word "person" as above the House of Lords held that in the case of the defendants the provisions of the Act were sufficiently satisfied by the fact that the person actually dispensing was qualified under the Act. Anyone who considers this case with reference to the matter before Judge Beresford will see that a totally different point was there involved. The Dentists Act provides that a person shall not be entitled to recover for dental work or advice unless he is a duly qualified practitioner. It would stultify the Act if it was held that "persons" could sue for what "a person" could not, and any attempt to evade the Act by suggesting that the subject of the claim was not "an operation," or "attendance," or "advice" should be rigorously scrutinised. The admission of the debt by the insolvent person should not affect the matter, as he might admit as a debt a large sum due under a wager which would swamp most of his estate and thus deprive others of their money. Whatever the reason, however, may have been which caused the objection raised by Dr. Spettigue to be disallowed, he was entitled to considerate treatment. In no circumstances should a judge attempt to cast ridicule upon one, not being a lawyer, who solicits his intervention. Least of all should he do so where the applicant is a member of another learned profession endeavouring to uphold the honourable privileges of his calling in a court of law.

[1] 5 Appeal Cases, 857.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held on Nov. 19th, Sir WILLIAM S. CHURCH, Bart., K.C.B., the President, being in the chair.

The PRESIDENT announced that the adjudicators of the Weber-Parkes prize had selected the following subject for the next award in 1906: "The Degree of Infectivity of Pulmonary Tuberculosis and the Administrative Measures desirable for the Control and Treatment of the Disease."

The PRESIDENT also made a statement in reference to the sum which had been left over from the money subscribed for the expenses incurred in the preparations for viewing the procession on the occasion of the coronation of the King. The President had written to Lord Knollys asking him to obtain the King's permission to allow a portrait of His Majesty to be hung in the College. The necessary consent had been graciously given and it was now proposed to consult with Mr. Fildes as to the production of a replica of a portrait of the King painted by that artist and to apply the above-mentioned sum to that purpose. A subcommittee consisting of the President, the Treasurer (Sir Dyce Duckworth), and Dr. G. F. Blandford was appointed to make the necessary arrangements.

A communication was received from a Member of the College offering a sum of money (£500) for the purpose of encouraging investigation into matters connected with tuberculosis, leprosy, plague, and malaria; that for this purpose a lecture-ship should be established to be styled "The Dr. Horace Dobell Research Lecture on the Ultimate Origin, the Evolution, and Life-history of Bacilli." This generous offer was thankfully accepted by the College. The President, the Registrar (Dr. E. Liveing), and the Treasurer were appointed to act as a committee to confer with Dr. H. B. Dobell as to the means of carrying out the trust.

VACCINATION EXPENDITURE.—The Chard board of guardians has recently presented an appeal to the Local Government Board in reference to the increased cost of public vaccination in the Chard union since the passing of the Vaccination Act. In the four years immediately preceding the passing of the Act 1853 primary vaccinations were made at a cost of £222, whilst in the four years subsequent to the enforcement of the Act 1840 primary vaccinations and 113 revaccinations were performed at a cost of £911. The guardians suggest that the Local Government Board should be empowered by new legislation to decide that "stational vaccination should be allowed" in unions where good vaccination returns have been shown. With regard to the fees paid to public vaccinators the guardians consider that when such fees were fixed it was thought that public vaccinators would be put to considerably more trouble than has proved to be the case.

Public Health and Poor Law.

LOCAL GOVERNMENT BOARD.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

The City of Manchester.—Dr. J. Niven reports that the Manchester birth-rate for 1902 (33 per 1000) was higher than in any recent years since 1895 while the marriage-rate (18 per 1000) was also above that for either 1900 or 1901. Although these rates have to be considered in conjunction with the fact that in 1901 the birth-rate, owing apparently to the prevalence of arsenical neuritis, was exceptionally low and that the termination of the South African war may have favourably influenced the marriage-rate there is, as Dr. Niven states, ground for the belief that no serious business depression obtained in Manchester during the year under notice. But since 1885 there have been generally in the city an increase in the marriage-rate and a decrease in the birth-rate, a combination of circumstances which in Dr. Niven's view points to a deliberate restriction of reproduction. Such restriction is not found among "the more reckless portion of the community" and the fact that it is exercised by the more prudent classes may be, he thinks, "a serious menace to the quality of the population." As to this question Dr. Niven remarks: "It may be said generally, I think, that while it is permissible for medical men to indicate the means of restricting production where it is impossible to maintain the young family or where the health of the mother is undermined, nothing but harm is to be expected from the general adoption of artificial means. The result will probably be the selection of an inferior population and a failure to respond to the call for increase in population when the demand is urgent." This is very largely the view which is taken by most people who have thought upon this subject and the stationary condition of the population of France is a good illustration of the manner in which the adoption of neo-Malthusian practices may lead to a serious state of affairs in so far as family or national survival is concerned. It was, indeed, against these practices that Zola's "Stérilité" was largely directed. But the question in its general aspects would be very difficult of treatment by the medical profession and the only practicable manner of attacking it seems to be to handicap the small family financially. Dr. Niven furnishes an interesting account of the measures taken in Manchester to control small-pox and he tells us that in order to avoid the aerial convection of the disease every patient in the acute phase of the malady was oiled with a 2 5 per cent. solution of carbolic oil thrice daily. As a result of this measure no case of the disease occurred within half a mile of the hospital. It was not thought necessary in Manchester to render varicella a notifiable disease and Dr. Niven thinks that no harm accrued from the omission. In his view the most important factor in the spread of small-pox in the city was the overlooking of cases in the common lodging-houses. When cases were discovered therein every effort was made to vaccinate the "contacts." In the poorer common lodging-houses the inducement of a shilling answered the purpose but in the better-class establishments the amount was not sufficient. Dr. Niven makes some suggestions as to the lines which future legislative action should follow and he attaches the greatest importance to general revaccination at school ages. It is, as he observes, by this method that the Germans have prevented the disease from becoming endemic in the fatherland. If an Act containing this provision were passed Dr. Niven thinks that the conscience clause might be retained as in the case of primary vaccination but we do not gather that he would extend the provision of this clause to those who have come in contact with small pox. In these circumstances he would not propose to isolate "contacts," the experience of Manchester during the recent prevalence of small-pox not having shown this step to be necessary. With respect to pulmonary tuberculosis Dr. Niven reports that during 1902 1275 cases were notified as compared with 1339 in 1901 and 1573 in 1900—i.e., there has been a progressive decrease in the number of notifications received. Of the 1275 cases notified in 1902 667 were Poor-law cases, 305 were from institutions, and only 303 were notified by private practitioners. From these figures Dr. Niven infers that the administrative measures adopted somewhat discourage medical practitioners from notifying cases. The remedy for this state of affairs is, he thinks, compulsory notification. Dr. Niven's views with regard to the communicability of pulmonary tuberculosis will always command respect and interest. He thinks it very difficult for any person to avoid inhaling a certain number of tubercle bacilli but he suggests that an amount of infection which would light up the disease in a weakened constitution would have no effect in those of a more robust habit. He, however, inclines to the opinion that even the strongest person may become infected provided a sufficient amount of infection is present. In judging of the most probable sources of infection in any given series of cases he assumes that healthy people only contract the disease after prolonged exposure and that if such exposure has taken place within two years of the onset of the disease it may reasonably be regarded as the cause of the infection. In this manner 406 cases have been grouped as regards infection into "likely" 278, "less likely" 103, and "possible" 25 Doubtless Dr. Niven has an excellent reason for taking this limit of two years but to some it would seem rather a long interval—i.e., it would appear to imply a period of latency over and above that usually occupied in what is termed incubation, and, if once the principle of latency is accepted, and we are far from rejecting it there would seem to be no reason for limiting the interval to two years. Behring would probably take a different view of the cases grouped by Dr. Niven and he would conclude that in all there were conditions which altered the resistance of the individual in such fashion as to render him a susceptible subject to the infection which he took in with milk at infancy. He would support his thesis by the records of the post-mortem room and by the results of the inoculation with tuberculin of an Austrian regiment, 68 per cent of whom reacted. But far be it from us to dogmatise upon the very difficult problem and all those interested in the subject of tuberculosis—or, indeed, in all matters of public health—should not fail to read Dr. Niven's admirable report.

The City of Sheffield.—Dr. John Robertson, who is to be congratulated upon being appointed to the important post of medical officer of health of the city of Birmingham, has left behind him in Sheffield numerous records of his energy and ability and among these must be expressly mentioned at the present time the compulsory notification of pulmonary tuberculosis. As, therefore, this is the first departure in the direction of compulsory notification of the disease in this country it will be well to furnish our readers with a brief abstract of section 45 of the Sheffield Corporation Act, 1903, which deals with this question. The usual provisions as regards notification, payment, and penalty are duly set forth and these provisions are followed by a clause enacting that whenever the medical officer of health certifies that the cleansing and disinfecting of any building would tend to prevent or to check tuberculosis of the lung the necessary work must be carried out either by the occupier (or owner) or by the corporation. But by far the most important subsection in the whole document is that which enacts that "No provisions contained in any general or local Act of Parliament relating to infectious disease shall apply to tuberculosis of the lung or proceedings relating thereto under this section." It will thus be seen that tuberculous subjects are not to be exposed to the same disabilities as are those suffering from the acute exanthemata—i.e., the disease in question is not added to the Infectious Diseases Notification Act but dealt with separately. Obviously, as we have often pointed out, it would be absurd to apply all the disabilities of the Sanitary Acts to persons suffering from a disease which lasts for years and from which a very large proportion of the population suffer. The Sheffield section is to remain in force for seven years when it will, unless continued by an Act of Parliament or a provisional order of the Local Government Board, automatically cease to be operative. The measure is, therefore, purely experimental and it will in this sense be watched with the greatest interest by all those who are anxious to bring about the decrease of pulmonary tuberculosis at a rate greater even than it is already declining. Having regard, therefore, to the importance of the year 1902 in so far as tuberculosis is concerned, we append the death-rates from all forms of tuberculosis since 1893, the rates being per 1000.

1893	...	...	...	...	...	2·43	1898	...	...	...	...	...	1·80
1894	...	...	...	...	...	2·11	1899	...	...	...	...	...	2·09
1895	...	...	...	...	...	2·27	1900	...	...	...	...	...	2·03
1896	...	...	...	...	...	1·88	1901	...	...	...	...	...	2·19
1897	...	...	...	...	...	2·01	1902	...	...	...	...	...	1·79

Dr. Robertson tells us that the mortality from pulmonary

tuberculosis has been reduced in Sheffield nearly 50 per cent. during the last 50 years and he regards this reduction as mainly due to the improved conditions under which the people live, such, for instance, as "better sanitary arrangements, less overcrowding, better lighting and ventilation, less dampness in dwellings, greatly improved conditions of work due to our Factory and Workshops Acts, and much improved food supplies."

The Borough of Brighton.—The town council of Brighton should feel itself under an obligation to its medical officer of health, Dr. A. Newsholme, and its deputy medical officer of health, Dr. T. H. C Stevenson, for the trouble they have taken in preparing a second Brighton life table based upon the mortality experiences of the ten years 1891–1900. A comparison of the teachings of this table with those of the first life table drawn up by Dr. Newsholme from the mortality experiences of the ten years 1881–90 is both instructive and intere-ting, and, generally speaking, the comparison must be interpreted as complimentary to the administration of the Brighton town council, whether the results be looked on as indicative of its activity in a purely sanitary sense or whether from the standpoint of the material or social welfare of the people of Brighton. In the construction of the life table what is known as the "graphic method" has been employed except for ages 85 and over, for which what is known as the "method of differences" has been utilised. The result is a table which is thoroughly trustworthy for all practical purposes. Taking now a general view of the inferences to be drawn from a comparison of the two Brighton life tables we find in the first place that the *probability of living one year* in 1891–1900 was less in the first year of life than in 1881–90, but on looking further into the figures we discern a difference as regards the sexes. Although in the case of males the probability of survival to the end of the first half year had diminished that during the last half year had slightly increased. Dr. Newsholme attributes this "worsement" largely to the more general adoption of artificial feeding as well as to meteorological influences. In the case of female children the probability of survival was less in both halves of the first year of life in 1891–1900 than in 1881–90. But after the first year of life the picture for the period 1891–1900 is, generally speaking, materially brighter than was that drawn by the statistician from the figures for the preceding decade. As to males the probability of living through each year was greater at all ages save at the periods 20 to 24, 56 to 65, and 73 to 80. From the age of 80 until the end of life, except at ages 87 and 88, this probability has improved. With respect to females the story was more hopeful in 1891–1900 than in the previous decennium, except for the ages 11 to 14 inclusive, at 64 at ages 66 to 72 inclusive, and at ages 87 onwards. The female probability was greater than the male in every year of life except the second and for each of the years from six to 15 inclusive. After 15 the female probability was greater to the eighty seventh year. Coming now to the figures dealing with the *number of survivors out of 100,000 born of each sex* at the end of each succeeding year of life the experiences of 1891–1900 are, except for the first year of life, favourable, not only as compared with the Brighton of 1881–90 but also at every year contrasted with the figures for England and Wales, London and Haydock, and the following table relative to the first four years of life will tell its own tale:—

Male Survivors out of 100,000 Born

Age.	Brighton.	England and Wales.	London.	Haydock.
0	100,000	100,000	100,000	100,000
1	83,194	82,861	81,568	78,510
2	79,211	78,467	76,229	—
3	77,503	76,836	74,123	—
4	76,472	75,836	72,794	—

Finally, with regard to the comparison as to the future *expectation of life* at each year of age, the most important of all the lessons of a life table, compared with 1881–90 the male expectation of life at birth had increased in 1891–1900 by 1·34 years and the expectation remained higher than in the previous decade for every age except from 71 to 75 inclusive. Similarly with respect to females the expectation of life at birth had increased 0·94 year and the expectation remained higher until after 53 when it was fractionally lower than the previous period except at ages 71 to 74. As compared with England and Wales as a whole and with London the male expectation of life at birth in Brighton was during 1891–1900 three quarters of a year higher than in the former and nearly four years higher than in the latter (London). These are, briefly stated, the lessons of the second Brighton life table and we congratulate Dr. Newsholme upon the accomplishment of the task and on the results of the research. It would be interesting if a life table of the poorer parts of Brighton could be separately constructed and compared with a similar table for the richer parts of the same town. Or, perhaps better, we should like to see a separate life table constructed for the several London boroughs.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 8020 births and 5037 deaths were registered during the week ending Nov. 21st. The annual rate of mortality in these towns, which had been 16·3, 16·2, and 17·9 per 1000 in the three preceding weeks, declined again last week to 17·4 per 1000. In London the death-rate was 16·6 per 1000, while it averaged 17·8 in the 75 other large towns. The lowest death-rates in these towns were 7·1 in East Ham, 9·3 in Hornsey, 9·5 in Southampton, 9·6 in Brighton, 9·7 in Leyton, 10·6 in King's Norton, 10·7 in Bournemouth, and 10·8 in Coventry; while the highest rates were 24·7 in Plymouth, in Devonport, and in Hanley, 25·1 in St. Helens, 25·5 in Preston, 25·9 in Oldham, 27·1 in Stockton-on-Tees, 27·4 in Middlesbrough, and 29·3 in York. The 5037 deaths in these towns last week included 436 which were referred to the principal infectious diseases, against 523, 419, and 432 in the three preceding weeks; of these 436 deaths, 110 resulted from diarrhœa, 106 from measles, 73 from diphtheria, 59 from whooping-cough, 46 from scarlet fever, 40 from "fever" (principally enteric), and two from small-pox. No death from any of these diseases was registered last week in Hornsey, Tottenham, Hastings, Bournemouth, Reading, Burton-on-Trent, King's Norton, Smethwick, Coventry, Stockton-on-Tees, or Newport (Mon.); in the other towns the highest death-rates from the principal infectious diseases were recorded in Willesden, Leyton, Devonport, Hanley, Warrington, Oldham, Preston, York, and Merthyr Tydfil. The greatest proportional mortality from measles was recorded in Willesden, Warrington, Bury, Salford, Oldham, York, and Sunderland; from scarlet fever in Northampton, York, and Merthyr Tydfil; from diphtheria in Bermondsey and Grimsby; from whooping-cough in Devonport, Warrington, York, and Merthyr Tydfil; from "fever" in Wallasey and Preston; and from diarrhœa in Hanley, West Bromwich, York, Cardiff, and Merthyr Tydfil. Of the two fatal cases of small-pox registered in these towns last week, one belonged to Nottingham and one to Tynemouth. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals, which had been 42, 43, and 51 at the end of the three preceding weeks, had declined again to 47 at the end of last week; five new cases were admitted during the week, against 12, five, and 16 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital on Saturday last, Nov. 21st, was 1833, against 1828, 1854, and 1824 at the end of the three preceding weeks; 193 new cases were admitted during the week against 199, 224, and 185 in the three preceding weeks. The deaths in London referred to diseases of the respiratory organs and pneumonia, which had been 260, 271, and 339 in the three preceding weeks, declined again last week to 325, and were 22 below the number in the corresponding period of last year. The causes of 46, or 0·9 per cent., of the deaths in the 76 large towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Leeds, Hull, Newcastle-on-Tyne, and in 46 other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Blackburn, Sheffield, Sunderland, and South Shields.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal

Scotch towns, which had been 17·0, 15·8, and 17·4, per 1000 in the three preceding weeks, was again 17·4 per 1000 during the week ending Nov. 21st, and was equal to the rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 10·7 in Paisley and 12·3 in Aberdeen, to 17·0 in Perth, and 20·4 in Glasgow. The 569 deaths in these towns included 20 which were referred to diarrhœa, 13 to measles, seven to diphtheria, seven to whooping-cough, six to "fever," four to small-pox, and four to scarlet fever. In all, 61 deaths resulted from these principal infectious diseases last week, against 62, 53, and 49 in the three preceding weeks. These 61 deaths were equal to an annual rate of 1·9 per 1000, which was 0·4 per 1000 above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of diarrhœa, which had been 33, 15, and 20 in the three preceding weeks, were again 20 last week, and included 11 in Glasgow, four in Aberdeen, and three in Edinburgh. The deaths from measles, which had been 11, 19, and 10 in the three preceding weeks, rose again last week to 13, all of which occurred in Glasgow. The fatal cases of diphtheria, which had been six and four in the two preceding weeks, rose again last week to seven, and included three in Glasgow and two in Perth. The deaths from whooping-cough, which had been seven, six, and four in the three preceding weeks, increased again last week to seven, of which two were registered in Glasgow and two in Edinburgh. The fatal cases of "fever," which had been two, one, and ten in the three preceding weeks, declined again to six last week, and included five in Glasgow. The four deaths from small-pox and two of the four deaths from scarlet fever occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 108, 107, and 129 in the three preceding weeks, further rose last week to 136, and were 15 in excess of the number in the corresponding period of last year. The causes of 23, or more than 4 per cent., of the deaths registered in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21·2, 21·7, and 20·9 per 1000 in the three preceding weeks, rose again to 24·5 per 1000 during the week ending Nov. 21st. During the past four weeks the death-rate has averaged 22·1 per 1000, the rates during the same period being 16·3 in London and 16·0 in Edinburgh. The 178 deaths of persons belonging to Dublin registered during the week under notice showed an excess of 26 over the number in the preceding week and included nine which were referred to the principal infectious diseases, against seven, two, and seven in the three preceding weeks; of these, four resulted from diarrhœa, two from diphtheria, two from whooping-cough, and one from "fever," but not any from small pox, measles, or scarlet fever. These nine deaths were equal to an annual rate of 1·2 per 1000, the death-rates last week from the principal infectious diseases being 1·3 in London and 1·1 in Edinburgh. The fatal cases of diarrhœa, which had been four, one, and none in the three preceding weeks, rose again last week to four. The two deaths from whooping-cough showed a slight decline from the number in the preceding week. Two fatal cases of diphtheria occurred last week, none having been registered in any of the five preceding weeks. The 178 deaths in Dublin last week included 31 of children under one year of age and 53 of persons aged upwards of 60 years; the deaths of infants showed a slight decline while those of elderly persons were in excess of the number in the preceding week. One death from violence and four inquest cases were registered, and 59, or one-third, of the deaths occurred in public institutions. The causes of nine, or more than 5 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

NEW REGULATIONS FOR THE ROYAL NAVY MEDICAL SERVICE.

THE new regulations for the Medical Department of the Royal Navy have now been made public. These regulations will be found in our issue of Sept. 12th, p. 774, and the document now given to the public varies hardly at all from our version. The following two modifications may be noticed. The hospital allowances for naval medical officers at home and abroad, in lieu of provisions for themselves and servants and for fuel and lights, are now granted also to medical officers of the marine divisions and dockyards. This allowance when made to surgeons at Malta is reduced from £108 to £70, but servants will be provided there at the public expense. A small modification also occurs in the matter of compulsory retirement. Retirement will be compulsory upon an inspector or a deputy inspector-general of hospitals and fleets "at the age of 60, or at any age, if he has had three years' non-employment in any one rank; or after four years' continuous non-employment in any two ranks combined." The regulations for the compulsory retirement of these officers as published in our columns read "at the age of 60 or at any age if he has not served for five years." The alteration, which is for the benefit of the officers concerned, was made by an order in Council dated Oct. 9th, 1903.

ROYAL NAVY MEDICAL SERVICE.

The following appointments are notified:—Fleet Surgeon J. H. Whelan to the *President* for three months' study at Civil Hospital (to date Dec. 1st, 1903). Staff Surgeon J. Bradley to the *Edgar* (to date Dec. 1st, 1903). Surgeon S. H. Woods to the *Jason* on commissioning.

ROYAL NAVAL VOLUNTEER RESERVE.

The undermentioned gentlemen have been appointed Officers:—William Donald Anderson and Alexander MacLennan to be Surgeons (dated Nov. 20th, 1903).

ROYAL ARMY MEDICAL CORPS.

The undermentioned Lieutenants to be Captains (dated Nov. 14th, 1903):—W. J. Waters, H. F. Shea, C. E. Fleming, P. J. Bodington, J. F. Whelan, P. S. Lelean, W. H. Odlum, F. A. Stephens, M. G. Sterling, W. M. Power, J. T. Johnson, E. F. Q. L'Estrange, R. B. Black, and T. B. Unwin.

Major H. A. Cummins, C.M.G., is held in readiness for service in India early next year. Lieutenant-Colonel A. Baird, retired list, is appointed to the medical charge of the troops at Worcester.

VOLUNTEER CORPS.

Royal Garrison Artillery (Volunteers): 3rd Durham: Surgeon Lieutenant J. H. Hunter to be Surgeon-Captain (dated Nov. 21st, 1903); Surgeon-Major F. W. Sinclair resigns his commission (dated Nov. 21st, 1903).

Rifle: 2nd Volunteer Battalion the Royal Sussex Regiment: Surgeon-Lieutenant P. J. Le Riche to be Surgeon-Captain (dated Nov. 21st, 1903). 3rd (Dundee Highland) Volunteer Battalion the Black Watch (Royal Highlanders): Surgeon-Captain W. S. Malcolm resigns his commission (dated Nov. 21st, 1903).

THE RETIREMENT OF SURGEON-GENERAL G. J. H. EVATT.

Apropos of the retirement of Surgeon-General Evatt, which we announced last week, a correspondent sends us an appreciation of the work of that officer and we endorse all that our correspondent says, though we are unable to find room for his rather long letter. As the writer points out Surgeon-General Evatt had great ability as an organiser and we owe to him in a very great measure the formation of many of the volunteer ambulance corps which recently proved themselves so useful during the late war in South Africa. Then again it is to Surgeon-General Evatt that the Association of Medical Officers of Schools owes its foundation and his efforts to improve the lot of the private soldier were untiring. According to our correspondent a distinguished member of the Royal Army Medical Corps once referred to Surgeon-General Evatt in the following words, which we quote as giving an indication of the kind of officer the service has lost. "There is something inhuman about the man. When he was at Netley he was in the wards at 6 A.M., he was there all day, and there at 11 o'clock at night. It's inhuman, and he made more prisoners than anyone. But Netley was never so smart as when Evatt was there." It is a pity that an arbitrary age-limit should prematurely stop the effective work of Surgeon-General Evatt.

DEATHS IN THE SERVICES.

Inspector-General of Hospitals and Fleets Robert Pottinger, R.N. (retired), on Nov. 16th, at Abington Villa, Moffat, in

his eighty-sixth year. He entered the navy in 1839, was promoted staff surgeon in 1847, fleet surgeon in 1862, deputy inspector-general of hospitals in 1868, inspector-general of hospitals in 1876 and retired in 1878. He was assistant surgeon of the *Druid* at the bombardment and capture of Tykoktan and the forts of the Boca Tigris in 1841, and was afterwards frequently employed in boat service in Canton river. He was present at the capture of Amoy and was in medical charge of a detachment of marines who were engaged in taking possession of the island of Koolongsoo (China medal). He was surgeon of the *Hecla* and *Blenheim* during the Russian War, 1854–55, and in the *Hecla* was in a cutting-out expedition at Eckness, in the Gulf of Finland, and was present at the bombardment of Bomarsund (Baltic medal).

Fleet-Surgeon Gilbert Kirker, R.N., on Nov. 24th, at Haslar Hospital. He entered the navy in 1879 and served as surgeon on the *Isis* during the Egyptian War of 1882 (Egyptian medal and Khedive bronze star).

COMFORT FOR FRENCH SAILORS.

The French man-of-war *Suffren* has been selected for a hygienic experiment. A portion of the crew has been supplied with sheets for the hammocks. The new articles of bed furniture are described as good and solid. They are practically sacks which are sewn up only as regards their lower halves, the upper halves having been left separate in order to facilitate ingress. Means are provided for the attachment of the lower sheet to the ends of the hammock so that a restless sleeper shall not become entangled in its folds. The men are said to be delighted with their sheets which cannot but conduce to cleanliness and consequently to promote health.

STATISTICS IN THE MEDICAL DEPARTMENT OF THE FRENCH NAVY.

Instead of as heretofore being compiled in Paris, the annual medico-statistical reports of the French navy are in future to be drawn up at Bordeaux under the direction of the principal of the Naval Medical School which has long been established in that seaport. In the Ministerial letter giving effect to this innovation the entire staff of the school is earnestly called upon to render assistance. Professors, superintendents, and students are all expected to collaborate, the last in particular, because in this way they will become familiar with an important portion of their future duties.

"THE ARMY MEDICAL SERVICE FROM A CIVILIAN STANDPOINT."

In June of the present year a special number of the *Household Brigade Magazine*[1] was issued in commemoration of the King's birthday and among its contents was a contribution from the pen of Dr. H. H. Tooth, C.M.G., eulogistic of the Army Medical Service. This article has now been reprinted and should prove of interest to all who contemplate entering the Medical Department of the Army as a career.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

Surgeon General Sir William Taylor, K.C.B., Director-General of the Army Medical Service, will present the prizes and certificates to the members of the Volunteer Ambulance School of Instruction at 8.45 P.M. on Monday, Dec. 14th, at 130, Bunhill-row, E.C. (headquarters of the London Rifle Brigade).

An examination of candidates for not less than 30 commissions in the Royal Army Medical Corps will be held on Jan. 28th next and following days. Intending competitors should apply to the Director-General, Army Medical Service, 68, Victoria-street, S.W.

[1] THE LANCET, July 25th, 1903, p. 260.

MEDICAL MEN AND THE MUNICIPAL ELECTIONS.—A complimentary dinner was given to Mr Colston Wintle, L.R.C.P. Lond., M.R.C.S. Eng., on Nov. 16th, at the County Ground Hotel, Horfield, to celebrate his third election to the Bristol town council. At the meeting of the Bristol health committee of the town council held on Nov. 17th Mr. Wintle was elected vice-chairman for the fifth year in succession.

Correspondence.

"Audi alteram partem."

THE METROPOLITAN ASYLUMS BOARD AND THE TREATMENT OF CONSUMPTION.

To the Editors of THE LANCET.

SIRS,—Will you kindly permit me to say a few words on the above subject which is dealt with by you in THE LANCET of Nov. 21st, p. 1444? Your leading article arose out of a resolution unanimously adopted at a recent meeting of the Metropolitan Branch of the Incorporated Society of Medical Officers of Health, in which the opinion was expressed that the Metropolitan Asylums Board, "by reason of their practical experience in regard to the provision of hospitals and the treatment of the infectious sick, are eminently qualified" to act as hospital authority in respect of consumption. In this connexion reference may be made to the conference of metropolitan Poor-law authorities held in October, 1900, at which 26 out of 32 boards of guardians were represented by 77 delegates who, by a unanimous vote, resolved "that the time had come when provision should be made for the open-air treatment of the chargeable sick poor of the metropolis." The conference, which had been convened at the suggestion of the Local Government Board, coincided with the view of the Board that the provision of hospitals for the purpose, if made, should be made by a central authority, the Metropolitan Asylums Board being indicated as the proper authority. The resolution was transmitted to the Local Government Board but no action was taken thereon.

In 1902 a number of metropolitan authorities—public health and Poor law—addressed communications to the Local Government Board and the Asylums Board expressive of their desire that the Asylums Board should provide hospitals for the isolation and treatment of poor persons suffering from consumption. In July the matter was referred by the managers to the general purposes committee who, on Nov. 29th, reported that "having regard to the important issues involved and to the fact that there was not then a general consensus of opinion amongst the metropolitan authorities in favour of the Asylums Board undertaking the treatment of consumptive patients" they had deferred consideration of the matter for 12 months. The report was adopted.

Before presentation of the report the council of the Royal borough of Kensington addressed the managers and also the Local Government Board, urging the desirability of steps being taken to devote some of the disused small-pox hospitals to the isolation and treatment of persons suffering from consumption. The representations of the council were endorsed by many metropolitan authorities—public health and Poor-law—in communications addressed to the Local Government Board and the Asylums Board and also by the National Association for the Prevention of Consumption and other Forms of Tuberculosis. But nothing then came of this new effort, the managers adhering to their decision not to re-open the question until the expiration of the 12 months from the date of the report of their general purposes committee. The period will expire on Monday next, Nov. 23rd. In view of this fact, the London medical officers of health met and, having considered the subject, adopted the afore-mentioned resolution and also another requesting the Board, should it decide to "undertake the treatment of consumptive patients," to "take into consideration the question whether the Gore Farm Hospitals, which have ceased to be reckoned as small-pox hospitals, would be suitable" for the purpose of sanatoriums, "seeing that the said hospitals could be brought into use at an early date and that the utilisation of them would save an otherwise necessarily large expenditure on hospitals specially erected for the purpose."

The Asylums Board, at its meeting held on Nov. 14th, referred the society's communication to the general purposes committee in connexion with the adjourned reference. It has always been understood that the managers were not unwilling to undertake the duty proposed to them and which they are well qualified to carry to a successful issue. The President of the Local Government Board is known to be

favourable to the movement generally and the Board has sanctioned expenditure by boards of guardians for the erection of sanatoriums. With the facts before them it is to be hoped that the managers will be satisfied that there is now such a "general consensus of metropolitan authorities" in favour of the proposal that they should assume the rôle of hospital authority as would justify them in taking action.

The need is great. In the metropolitan workhouses and infirmaries in July, 1900, there were 1562 persons suffering from consumption and more or less a danger to all with whom they were brought into contact. The number is probably not less at the present time. The managers have power to take charge of this class of the sick poor. To enable them to undertake the isolation and treatment of the non-chargeable sick poor probably legislation—a single clause Bill—would be necessary. How many sufferers belonging to this class there may be in London is unknown, but very many certainly, as may be inferred from the fact that last year the deaths in London from phthisis were 7621, compared with 2321 from scarlet fever, diphtheria, and continued fevers, the diseases, other than small-pox, now admissible to the managers' hospitals.

For small-pox ample provision has been made at Joyce Green, adjacent to Long Reach, in three hospitals erected at a cost of (including site) about a half a million sterling. The Gore Farm hospitals, which with site have cost about £320 000, have long been standing idle, and I know not to what purpose they could be applied if not converted to sanatoriums. These hospitals, with some necessary modifications and additions, would, it is thought, serve the proposed purpose very well. The site is admirable and in the midst of a beautiful open country, not far from Dartford, and beyond the fog and soot area of London. The two hospitals, "upper" and "lower," stand on high ground; the locality is bracing, the air is pure, the site is dry, and the water-supply and drainage are satisfactory. They are sheltered from the north and east winds and it may be taken as evidence of the general healthiness of the locality and the suitability of the buildings that in 1902 of 3220 convalescents from fever and diphtheria treated at the upper hospital not one died.

The hospitals are quite distinct and perfectly equipped, the one moreover being practically invisible from the other, so that classification would be easy. The wards are light and well ventilated, the floor and cubic space being ample. The grounds are well wooded and there is abundant space for any needed extensions, shelters, &c., the site comprising an area of 160 acres. The upper hospital contains some 1040 beds, the lower hospital, the larger part of which has not been brought into use hitherto, having 850. Gore Farm is within easy reach of the metropolis and the managers' motor ambulance could make the journey, to and fro, by daylight in the shortest day.

Enough, I hope, has been said to show that there is good ground for inquiry, and in the public health interests of the inhabitants of London it is to be hoped that the managers will see their way to use these hospitals for consumptives, and so save the greater part of the half a million sterling which you, Sirs, have suggested as the probable expenditure likely to be necessary to enable them "to deal with tuberculosis." THE LANCET has from the beginning of the movement recorded and commended every extension of sanatorium provision and I hope that its support will not be denied to a proposal which, probably, would double the existing accommodation in special hospitals devoted to the isolation and treatment of persons suffering from consumption.

I am, Sirs, yours faithfully,

Kensington, Nov. 21st, 1903. T. ORME DUDFIELD.

THE BORDERLANDS OF INFECTIOUS DISEASES AND THEIR MANAGEMENT.

To the Editors of THE LANCET.

SIRS,—The profession owe Dr. H. E. J. Biss a debt of gratitude for his able and instructive paper in THE LANCET of Nov. 7th, p. 1235, on the Borderlands of Diphtheria and Scarlet Fever. In his argument, however, he has seen through a pair of *red*-coloured spectacles. My readers will rejoin that I have looked through a *yellow* pair of spectacles and if only one of your subscribers will put on a pair of *blue* spectacles we may arrive at the clear *white light* of truth.

Dr. Biss has discussed the class of infectious diseases referred to from the point of view of the physician to a fever hospital, who has his cases "dumped" down at his door for reception and treatment, knowing little of their previous or future home history. Regarding infectious illness through his red spectacles he finds cases on his hands varying from the perfectly typical text-book description, concerning which no doubt can arise, to the slight or anomalous case for which neither he nor any other authority, however renowned, can on arrival on his dumping ground by any possibility find a docketed pigeon-hole. For such a case he ought to have an undocketed pigeon hole at his disposal in which to place the patient until he can either diagnose the disease or keep him isolated until the illness terminates when he can be returned after disinfection to his home. But surely no one would in earnestness say that such a case was a borderland disease. The disease is true enough and breeds true enough; the only thing lacking is the capacity to diagnose it. What is present is, probably, a feeble microbe in an unsuitable soil which has failed to propagate a full-blown specimen and has merely produced such a poor specimen of the disease that it is undiagnosable by all the art at our disposal. But these poor specimens are true samples of the disease, even although we may be unable to recognise the distinguishing characteristics. I have seen single cases of measles, rose-rash, chicken-pox, influenza, whooping cough, diphtheria, scarlet fever, and the "fourth disease" that after a lifetime spent in assiduously endeavouring to elucidate them I am ashamed to confess I have failed to diagnose.

Holding, however, a different position from Dr. Biss I have directed the search-light through a pair of yellow-coloured spectacles and have had revealed quite a different picture from that seen through his red glasses. When an indistinguishable case of disease arises *as a single case* I am obliged reluctantly to admit that I am unable to diagnose it. But it is so infinitely rare for these diseases to occur as single cases in the position I hold that I merely rest on my oars. Meanwhile I place the patient in quarantine in an undocketed pigeon-hole and wait and watch, like Mr Micawber, "for something to turn up." And when the appropriate period of incubation of the disease has elapsed and I find his study companion, or one or both of the two boys who sleep next to him in his dormitory or who sit next to him in "form," in chapel, or at meals, infected with the typical text-book description of the disease, I have very little difficulty in removing my patient from the undocketed to a docketed pigeon-hole. I therefore protest that these anomalous atypical cases are not borderland cases of disease, for they breed absolutely true and only too often start a group of characteristic cases of the disease or an epidemic. The impossibility of the diagnosis of a disease we have before us makes it imperative that means should be provided to quarantine the patient until it can be done; or failing diagnosis altogether, isolating until all possibility of the conveyance of infection has passed. Further, no immediate definite diagnosis is necessary when an undocketed pigeon-hole is available in which to quarantine the patient until it can be accurately ascertained.

It is a lamentable admission for a late medical officer of a fever hospital to have to make concerning the administration of fever hospitals, that "the constant breaking out of scarlet fever in diphtheria wards and of diphtheria in scarlet fever wards in most instances is traced to some individual the equivocal nature of whose illness had caused its real bearing to be overlooked." There is no borderland about these as they also bred true enough! It is high time that fever hospitals set their house in order and provided quarantine rooms in which their undiagnosed and undiagnosable cases can be pigeon holed until a diagnosis is possible and not place them in wards where they have no right to be incarcerated. The sooner, then, isolation hospitals, which apparently are not isolation hospitals but disease developers, are mended or ended the more creditable will it be for us as a profession and the safer will they be for the public. If something is not done to save these most valuable hospitals from themselves by providing single quarantine rooms for cases undiagnosable on entrance, and by arranging convalescent rooms for separating the convalescents from the recent cases of illnesses the public will refuse to enter them and they will be within their rights as citizens.

It must therefore be clearly set forth that the poisons which generate infectious diseases *are* "absolute entities,"

however humiliating it may be that we are unable to distinguish them in individual cases. But they breed true—as true as they have done for many generations of mankind. The plague, extinct with us in the twentieth century, is as virulent where its environment is favourable for its development as it was in the seventeenth century. In a suitable season and in the unprotected small-pox is as severe as it ever was in Jenner's day. Measles and scarlet fever are still identical with Sydenham's description of them. The type may be milder for a time by reason of the protection afforded by its running through generation after generation of the same race of mankind; but only let a favourable season arise, or a virgin community be attacked, and all the mildness of type is scattered to the winds. The diphtheria of to-day, in the absence of antitoxin, is the same as it was in the middle of the eighteenth and the middle of the nineteenth centuries when it commenced its epidemic fatal form in Cornwall on both occasions. If some of the infectious diseases were crossbreeds they would tend, like all crossbreeds, to revert to the original stock, evidence of which is not forthcoming. The gist of the whole matter seems to be merely one of the virulence or the mildness of the attack. Where this is severe its characteristics are manifest enough; where it is slight it may be so devoid of the distinguishing features of the disease that it may be a "toss-up," owing to our ignorance, as to which genus it belongs. But all doubt is removed when a succession of cases arises, among which are those possessing pathognomonic symptoms, showing that it breeds true, and no such case can be a "borderland," but is as typical as the most characteristic if we only had the faculty to unravel it. The hesitation is with ourselves; there is no dubiousness about the disease.

I am, Sirs, yours faithfully,

Rugby, Nov. 14th, 1903. CLEMENT DUKES.

THE DAWN AND RISE OF PHYSIOLOGY.

To the Editors of THE LANCET.

SIRS,—Professor W. Stirling in his address, an abstract of which appears in THE LANCET of Nov. 21st, p. 1418, suggests that a lectureship on the history of medicine should be established in the Manchester University, and no doubt it is very desirable that such a chair should exist in every university. Still, there is another subject which has a greater claim to be taught in every medical school—viz., dietetics. The laity are beginning to recognise the importance of diet not only in the treatment but in the prevention of disease and it ought to receive more attention than it has hitherto done in the medical curriculum. Hydrotherapy is also receiving much more attention in the schools in Germany and America than it used to do and is a subject which we ought also to study in this country. It would be well if the General Medical Council insisted upon an examination in both subjects.

I am, Sirs, yours faithfully,

JOHN HADDON, M.D. Edin.

Denholm, Hawick, Scotland, Nov. 21st, 1903.

THE M.D. DEGREE OF BRUSSELS.

To the Editors of THE LANCET.

SIRS,—Dr. P. A. Nightingale is correct in saying that the M.D. degree of Brussels University for practitioners does not confer the right to practise in Belgium (and I am sure few, if any, would wish to as it is already overcrowded with medical men). When I was in Brussels for the examination I made inquiries on this point and amongst others from the British Vice-Consul. He gave me distinctly to understand that certain formalities had to be gone through and permission had invariably been given in the few cases where the request had been made. Excepting for the fact (which, no doubt, is an important one) that the degree if obtained since 1886 is not registrable, holders of it are on an exactly similar footing with those who possess the practitioner's degree from St. Andrews, Durham, and some other universities. One reason is obvious why medical men who desire to hold an M.D. degree have recourse to Brussels University in that the above universities insist on a man being at least 40 years of age.

I am, Sirs, yours faithfully,

Canterbury, Nov. 16th, 1903. A. R. HENCHLEY.

To the Editors of THE LANCET.

SIRS,—In reply to Dr. P. A. Nightingale's letter in THE LANCET of Nov. 14th (p. 1395) respecting the value of the M.D. Brux., I have taken his advice and referred the matter to M. Lavachery, secretary to the University of Brussels, and to Dr. M. Greenwood, honorary secretary of the Brussels Medical Graduates' Association in London. As a result of these inquiries I find that (1) the degree does not *officially* confer the right to practise in Belgium, but that if one were to become domiciled there he would have no difficulty in obtaining a State permit to practise without having to undergo any further examination; and (2) the examination for the scientific title of M.D. for foreign candidates is identically the same as that for the legal title for the Belgian students. In the words of M. Lavachery, "Quant aux examens en eux-mêmes, ils sont identiquement les mêmes que ceux qui sont subis par les Belges à titre légal." The only difference between the terms *legal* and *scientific* M.D. is that the former applies to those students who have passed through their whole curriculum at Brussels and the latter to those who only take the final examinations there.

I am, Sirs, yours faithfully,

Westcliffe-on-Sea, Nov. 18th, 1903. N. LEONARD.

RECURRENT OVARIAN CYSTOMA AND ABERRANT ACCESSORY OVARIAN STRUCTURES.

To the Editors of THE LANCET.

SIRS,—In matters controversial there is nothing like a direct negative for clearing the air and showing up the issues in their true perspective. I will answer Mr. J. D. Malcolm's negatives *seriatim*. He says he has long been of the opinion that ovarian tumours are malignant more often than is generally supposed. He is not the only one who holds this opinion which is, I believe, erroneous, and for the following reasons. 1. It is in direct conflict with the carefully compiled mortality statistics of this country and of all countries where reliable records are kept. Thus Dr. Tatham's analysis of the localisation of malignant disease in women, as given in the Registrar-General's sixty-third annual report, shows that of 16,246 women who died from malignant disease in the year 1900 the ovary was the part affected only in 275 cases, or in 1·7 per cent. The United States statistics for the same year show a still smaller proportion of malignant ovarian disease—viz., less than 1 per cent. (0 9). 2. The information furnished by the statistical reports of large hospitals, where cases of this kind are carefully scrutinised and where a considerable proportion are submitted to post-mortem examination, is entirely in accord with that derived from the national statistics. Thus my analysis of 9227 primary tumours in women under treatment in large metropolitan hospitals shows that only 51 (or 0 6 per cent.) were affected with malignant disease of the ovaries. Similarly of 804 primary ovarian tumours only 6·3 per cent. were malignant. Gurlt's analysis of the mortality statistics of the chief Vienna hospitals gives similar results. Of 138 ovarian tumours from the Kelly clinic, submitted to microscopical examination at the Johns Hopkins Hospital, 11, or 8 per cent., were malignant. 3. Now, in strange contrast with this rarity of malignant disease of the ovaries in ordinary circumstances is the great frequency of its occurrence after ovariotomy, which in Spencer Wells's large experience amounted to no less than 36 per cent.

With regard to this last important item Mr. Malcolm says: "My personal experience does not afford any data in support of it." This is not at all surprising. There are so many ovariotomists nowadays that the experience of any one surgeon is seldom large enough to enable him to dogmatise on such a subject. In Spencer Wells's time it was very different; for many years he had a monopoly of ovariotomy in London and he performed far more operations of this kind than any living surgeon has ever done. Moreover, Spencer Wells, besides being a great ovariotomist, was endowed in no ordinary degree with the business-like habit of keeping accurate records of all his cases which he followed up even to the extent of ascertaining the causes of death of those who died many years after operation. It is to this unique record of his personal experience of 1000 completed ovariotomies that those who wish to know the causes from which women die after this operation should refer. On examining this record I have found that of those who recovered after completed ovariotomy 117 had since died, the cause of death being unknown in 29; of the remaining 88 no less than 32 had succumbed to malignant disease, or 1 in 2·75. During the

same period I have ascertained that the cancer mortality in the general population among women of the same age was 1 in 15. Thus the cancer mortality was nearly five and a half times greater for those whose ovaries had been removed than for those who had undergone no such operation. Moreover, the proportion of cancer deaths was much greater among those who had undergone double ovariotomy than in those submitted to the unilateral operation.

The experience of other ovariotomists who have followed up the after-history of their completed cases, as Spencer Wells did (Olshausen, Pfannenstiel, and others) is to the same effect. The gynæcological publications of the last quarter of a century literally teem with confirmatory cases, which might be cited by hundreds. But it would take up too much of your valuable space if I were to proceed further in this direction; for the present it must suffice if, in concluding this letter, I call attention to only one other indication of this kind—viz., the proclivity to malignant disease manifested by persons with badly developed, rudimentary, or absent ovaries, of which so many examples have lately been reported (Krug, Stroebe, Krabbel, Neugebauer, Unterberger, Audain, Ladinski, Heinricius, Obolonski, Fehling, Hall, and others). In face of such facts as I have instanced, I submit that it is necessary for those who disbelieve in the frequency of malignant disease after removal of the ovaries to support their denial with something more convincing than a pious opinion and a vague appeal to personal experience.

I am, Sirs, yours faithfully,

Clifton, Bristol, Nov. 21st, 1903. W. ROGER WILLIAMS.

THE LUNG REFLEX OF ABRAMS.

To the Editors of THE LANCET.

SIRS,—Regarding my remarks on the causation of the thoracic expansion which follows upon pulmonary relaxation I must again insist that Dr. A. G. Auld[1] fails to interpret them correctly. He makes me say in effect that the passive outward recoil of the thoracic walls (ribs, sternum, and diaphragm) "is not alone able to produce a certain degree of thoracic expansion, without, that is, any aid on the part of the muscles of inspiration." In both my previous letters I explicitly state that such recoil is competent to do so. What I, however, contend is that the expansion thus induced will not end here but that the inspiratory muscles will come into extra play so as to tighten up the pulmonary tissues (which would otherwise be unduly relaxed) and maintain pulmonary suction at the normal. I fear that Dr. Auld and I are little likely to agree on this matter, for it is evident that we have fundamentally different conceptions as to the origin, nature, and meaning of pulmonary suction. I have failed to convince him that this phenomenon originates in, and is throughout life maintained and regulated essentially by, the inspiratory muscles. He admits, it is true, that these muscles take part in establishing the suction immediately after birth but contends that thereafter "the conditions are, in fact, reversed and the inspiratory muscles instead of endeavouring to establish a pulmonary suction are in reality directed rather against it." Surely a strange contention. The effect of the inspiratory muscles in breathing is *to augment suction:* the mean capacity of the chest is greater during breathing than is its capacity at the end of expiration (when we may suppose the inspiratory muscles to cease to act) and therefore suction is in the former case greater than when the chest remains in the expiratory position; from which it is manifest that the inspiratory muscles must throughout life, moment by moment, take a direct and active share in the maintenance of pulmonary suction.

Dr. Auld makes me appear to have laboured under the misapprehension that in stating a mere physiological truism—i.e., that pulmonary suction favours cardiac diastole—I was enunciating a new and original view of my own, for, says he, "the function of the pulmonary suction in facilitating cardiac diastole ..... is surely a well-established fact in pneumono-dynamics." May I therefore be permitted to remind him that I did not confine myself to a bald statement of this well-known fact. I contended that the *essential* function, the *raison d'être*, of pulmonary suction is to help cardiac diastole, not so much of the ventricles as *of the auricles*, and notably *of the right auricle* (which I may here remark is in much more extensive relation with the lung than is the left, as shown by transverse sections of the frozen cadaver), and I further urged that inasmuch as pulmonary suction is essentially dependent upon, and is throughout life vigilantly regulated by, the action of the inspiratory muscles, these latter contribute a constantly active diastolic force, a view which does not, I venture to hope, savour of platitudinism—if I may be allowed the term.

As to the existence of a pulmonary reflex I have, as I said in a former letter, a perfectly open mind, but I am bound to add that much of the evidence advanced by Dr. Auld in its favour seems to me capable of different interpretations from that which he puts upon it. If it is a fact that the fluoroscopic picture shows a local increase of brightness corresponding to the part of the chest wall stimulated we must indeed accept it as strong evidence in favour of the existence of a pulmonary reflex; but when Dr. Auld supports, as he does in his last letter, Dr. Abrams's contention to the effect that the borders of the lung can be made to move more extensively by reflex means than by forcible inspiration, he is accepting as a truth what appears to me to be a physical impossibility. By means of a complete inspiration the borders of the lung are made to travel to the uttermost confines of the pleuræ. How, I would ask, is it possible for them to go further? Assuming, however, that they can by reflex means be made to move thus far, will Dr. Auld still contend that the attendant expansion of the chest can be wholly due to mere passive recoil?

I am, Sirs, yours faithfully,

Wimpole-street, W., Nov. 22nd, 1903. HARRY CAMPBELL.

[1] THE LANCET, Nov. 21st, 1903, p. 1462.

THE WALSALL DISTRICT MEDICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 21st amongst the Birmingham news (p. 1467) reference is made to an article in the *Midland Medical Journal* on the subject of the secession of the Walsall Medical Society from the Birmingham and District General Medical Practitioners' Union. In that article the Walsall men are attacked rather vigorously and anyone reading it and knowing nothing of the true state of affairs must draw a very uncomplimentary deduction as to the state of things here. As a matter of fact, Walsall has recently been most active in matters of medical reform. The reply to the circular on the subject of touting clubs was that these clubs were almost, if not quite, abolished. The club collector, who formerly went from door to door, gathering pennies and new members for the doctors' clubs, has vanished from the face of the earth. The majority of the medical men in Walsall are holding together to their mutual advantage and Walsall is not by any means in the parlous state that your correspondent thinks, nor in the absolutely deplorable condition suggested by the writer in the *Midland Medical Journal*.

I am, Sirs, yours faithfully,

FRANK G. LAYTON,
Honorary Secretary, Walsall and District Medical Society.

Walsall, Nov. 22nd, 1903.

THE PRESENT POSITION OF ETHYL CHLORIDE.

To the Editors of THE LANCET.

SIRS,—I notice in THE LANCET of Nov. 7th, p. 1305, a review of a little book[1] which I published just 15 months ago. The review concludes with the remark that ethyl chloride is noticed as a general anæsthetic but "we should judge fails to gain the favour of the writer." Now anyone taking interest in the subject of anæsthetics must be well aware that ethyl chloride has made enormous strides during the past year in this country. It has been very favourably noticed and commented on in nearly every surgical and dental journal in the English language. I myself have contributed a humble quota to the literature of the subject based on a practical experience of some 400 cases and I think that in ordinary fairness the gentleman who wrote the review in question might have qualified his remarks—especially in view of the protracted period of gestation—by adding "at the time the book was written."

I may remark that at that time I was using the gas-ether sequence very largely, both in hospital and private work. I never went out to an anæsthetic case unless I had a small

[1] A Pocket Guide to Anæsthetics for the Student and General Practitioner, W. Green and Sons, Edinburgh.

cylinder of nitrous oxide in my bag. During the past six months I have not used nitrous oxide once in surgical work but have invariably employed the ethyl chloride–ether sequence in preference. I use ethyl chloride every day and often many times a day. I regard it as a very valuable addition to the anæsthetist's repertoire and I am quite sure that it has come to stay and will take a front place among anæsthetic agents in the future. It has been used as largely in Edinburgh as in any medical school during the past few months I think. It is used almost exclusively in the ear and throat wards of the Royal Infirmary and also in the dental department latterly. I am also proud to say that on my advocacy a gentleman of much wider anæsthetic experience than myself started using it in one of the Metropolitan hospitals and has since written me with favourable comments.

What has kept back ethyl chloride has been the lack of a suitable inhaler. There are several very good patterns on the market now, however, and with any of these good results can be obtained. In THE LANCET of June 13th (p. 1677), July 18th (p. 168), and Oct. 17th (p. 1087), special inhalers, all based on much the same principle, were described by Mr. R. H. Jocelyn Swan, myself, and Mr. G. W. B. Daniell respectively, while in the issue of April 4th (p. 952) of this year Dr. W. J. McCardie expresses his preference for Ormsby's inhaler. I notice to-day in the new English edition of Kocher's "Operative Surgery" just published, that the author remarks that he tried ethyl chloride as a general anæsthetic "several years ago with ungratifying results"—this being doubtless due to the use of Breuer's mask (mentioned in a previous paragraph)—a most unsuitable inhaler in every way.

Will you pardon me if at the risk of repetition I sum up in a few sentences the views I have as to the value of ethyl chloride at the present time? 1. It is a pleasant anæsthetic to inhale, extremely rapid in action, very portable, and inexpensive. 2. It compares favourably with nitrous oxide as regards induction of anæsthesia and available period; it produces no cyanosis when used in suitable doses and necessitates the carrying of no heavy and cumbersome impedimenta. The advantage of this to the general practitioner and dentist in the country is obvious. 3. The technique of the administration is very simple. 4. While not as safe as nitrous oxide in the hands of the unskilled we are justified in concluding from the material available that it is safer than ether, all things considered, and much safer than $CHCl_3$ or bromide of ethyl. 5. It can be safely readministered at one sitting, this being a further point in its favour over bromethyl. 6. It is not usually followed by marked after-effects. 7. It is preferable to nitrous oxide when the patient is very young, very old, or anæmic, while those who are suffering from cardiac, renal, or lung affections take it quite well. 8. It is in no way to be preferred to $CHCl_3$ or ether for *prolonged* anæsthesia but may be used with advantage merely to induce anæsthesia which is maintained either with $CHCl_3$ or ether. 9. For minor surgery, throat operations, and the extraction of teeth it is the best anæsthetic available at the present time. 10. Pure ethyl chloride, sold as such, is always preferable to proprietary preparations and to mixtures such as somnoform. 11. In conclusion, I think one of the strongest claims of ethyl chloride to being considered a fairly safe anæsthetic lies in the fact that during the past 12 months it has been experimented with wholesale throughout the country and yet no death has been recorded. I think it quite possible that we may hear of one or two from time to time now as the anæsthetic becomes more widely used, and often by quite unskilled and inexperienced persons, but that should not blind us to the real merits of the drug when used with reasonable precautions.

I am, Sirs, yours faithfully,

Edinburgh, Nov. 25th, 1903. THOMAS D. LUKE.

*** We have already expressed our regret to Dr. Luke for the delay that has occurred in the review of his book. Guides to any progressive branch of science speedily pass out of date.—ED. L.

TYPHOID FEVER.

To the Editors of THE LANCET.

SIRS,—In your issue of Nov. 21st, p. 1416, you publish a clinical lecture on Typhoid Fever by Dr. Seymour Taylor which invites criticism. This no doubt Dr. Taylor expects, for he admits at the outset that his remarks are based entirely on clinical experience (? 56 cases) and may be erroneous. First as to what Dr. Taylor calls the predisposing causes but which I should prefer to designate the primary etiological factors. I have dealt with the flood theory elsewhere in the paper[1] I had the honour of reading before the Epidemiological Society in April last. This flood theory has received the strong support of two such eminent sanitarians as the late Dr. Corfield and Mr. Shirley F. Murphy, but I contend that the evidence on the whole is against its being more than a minor factor. For instance, do not floods occur as a general rule as much in February as in any other month of the year? Yet the incidence of typhoid fever in London and the Thames Valley is then at its yearly minimum. Dr. Taylor says: "I shall be interested to read the returns of the incidence of enteric fever in the watershed of the Thames during the wet summer and autumn of this year." He can at any rate find the vital statistics of London month by month in your columns, and the returns for October, 1903, are to be found in the same issue of your valuable journal in which appears his own lecture (*vide* p. 1456). He will find there that "the 49 fatal cases of enteric fever were 28 *below* the corrected average number." Again, at the Metropolitan Asylums Board hospitals, "the weekly admissions averaged 44, against 18, 27, and 40 in the three preceding months." Compare these with the weekly admissions in October, 1902, which "averaged 59, against 49, 38, and 63 in the three preceding months."[2] These figures indicate that London, at any rate, has enjoyed a much smaller incidence of typhoid fever this year than last year and I am inclined to think than for many previous years.

On the other hand, these figures lend considerable support to my own theory that the seasonal incidence of typhoid fever is very largely a mere coincidence with the seasonal consumption of infected shell-fish. London has suffered much less this year because of the shell-fish scare created last autumn and winter and the consequent smaller consumption, on the one hand, and the greater efforts put forth by the various metropolitan sanitary authorities, aided by the Worshipful Company of Fishmongers, to keep off the London markets shell-fish from obviously polluted sources, on the other hand. They, of course, have not been entirely successful in this but they have certainly accomplished a great deal, and in my judgment the immediate result is the marked decline in the incidence of typhoid fever. As undoubtedly some polluted shell-fish have been sold in London even this year and, moreover, as visitors to the various seaside resorts have in large numbers indulged in shell-fish while away (returning to develop typhoid fever in the metropolis) the London figures do not yet show the real proportion of typhoid fever due to shell-fish. It is my opinion that a very large proportion of the number of cases which have occurred this autumn are still traceable to shell-fish and that the satisfactory diminution already noted by no means represents the actual proportion of typhoid fever due to shell-fish. Other sources of typhoid fever in the autumn which must not be overlooked are uncooked vegetables and other foods which have been exposed to pollution in some form and perhaps in this direction the flood theory may be of some account.

As to the next primary etiological factor—the soil, or personal factor—there can, of course, be no two opinions as to its being an important one in the individual case, but it can hardly rank as a seasonal factor, the temperature of the human body being about the same all the year round. As to Dr. Taylor's remarks on relapse and recrudescence, I certainly am among those who can dispute his deductions and I can base my own deductions on 110 cases (with only eight deaths, two of these being admitted moribund) under my own care during the last 27 months and 50 additional cases which were under my observation, though not under my personal care, during the same period. I shall publish my own deductions in a separate paper on another occasion, merely stating here that they do not coincide with those of Dr. Taylor.

As to treatment I am very interested in Dr. Taylor's use of pulvis hydrargyri cum creta. I venture to think that this drug has probably not only a direct antiseptic action but an even more important indirect antiseptic action in promoting the flow of that natural intestinal antiseptic, bile. I can quite believe that both Dr. John Harley and Dr. Taylor have adopted this method of medication with satisfaction; I have myself employed hydrargyri subchloridum in some of my cases with satisfaction, but I have not made it by any

[1] Transactions of the Epidemiological Society, 1903.
[2] THE LANCET, Nov. 15th, 1902, p. 1347.

means a routine method. In any case mercury in small doses commends itself to me as a medicament in typhoid fever in the hands of a judicious physician.

I am, Sirs, yours faithfully,

J. T. C. NASH, M.D. Edin., &c.,
Medical Officer of Health, Southend-on-Sea, and Medical Superintendent of the Borough Fever Hospital.

Nov. 23rd, 1903.

To the Editors of THE LANCET.

SIRS,—I was much interested in reading Dr. Seymour Taylor's clinical lecture on Typhoid Fever published in THE LANCET of Nov. 21st (p. 1410). In speaking of the recrudescence of the fever he makes the remark that a rise of temperature in the later stages of the disease frequently follows the administration of an enema. I have a case in point at present. My patient, with a temperature of 99° F. at the end of the third week and no action of the bowels for four days, his illness having been characterised by constipation rather than by diarrhœa, was ordered a simple enema of soap-and-water. During the next 24 hours his temperature rose to 103° and remained such for 12 hours and then dropped to 99°. I offered an explanation at the time that in absence of any other cause the rise of temperature was due to the liberation of toxins owing to the disturbance caused by the enema. Whether this explanation was the right one puzzled me much till I read Dr. Taylor's paper in which he explains the rise of temperature as due to the liberation of toxins.

I am, Sirs, yours faithfully,

Stamford-hill, N., Nov. 21st, 1903. W. A. MILLIGAN.

THE SUCCESSFUL TREATMENT OF A FEW CASES OF LUPUS.

To the Editors of THE LANCET.

SIRS,—May I be allowed to comment upon Mr. C. S. Bowker's interesting article, the Successful Treatment of a Few Cases of Lupus, which appeared in THE LANCET of Nov. 14th, p. 1353. I agree that for suitably situated circumscribed patches of lupus complete excision is the most efficient and the quickest method of treating this disease and a linear scar is preferable to a superficial and large scar in all cases. In my hands, like those of Mr. Bowker, cases so treated have been absolutely free from recurrence. I have removed as many as five foci at one time by excision under general anæsthesia. I, however, fail to see the necessity of following up this operation by a course of tuberculin injections, presuming, of course, that all the foci have been completely removed. I should like to ask Mr. Bowker what is his *raison d'être* for the injection of arsenic, as such after-treatment is, in my experience, quite unnecessary. In very extensive and long-standing cases of lupus injections of Koch's tuberculin, either the old or the new, when persevered in, have been followed by excellent, and perhaps I may even say brilliant, results, both as regards the cosmetic appearances and the absence of return. I am now largely using the modified Finsen light and the x rays and have seen numerous most satisfactory cures in the hands of other medical men by this means, but I am doubtful if the results obtained by this treatment are superior to those from tuberculin. After the old tuberculin injections the temperature in my cases has occasionally risen to 103° F., but with the new tuberculin I have never, except in the rarest instances, obtained a temperature reaching 101°. The notes lie before me of a most extensive case of lupus involving the whole of the face excepting the top of the forehead, perforating the septum nasi, destroying part of the alæ nasi, affecting the hard palate, and as the results of its old cicatrising action upon the skin practically crippling the use of the right hand. Under Koch's new tuberculin this patient has immensely improved and I know of no single remedy which could have, in so extensive a case, brought about equally satisfactory results.

In my opinion the value of the "light" treatment depends upon its efficacy and painlessness; even children can be easily induced to submit to it until practically cured. The results of "excision" are perfect and speedy; but there are still some very extensive cases of lupus involving perhaps many different parts of the mucous membrane and skin in which the injections of "tuberculin" are of the highest value.

I am, Sirs, yours faithfully,

Wigan, Nov. 17th, 1903. R. PROSSER WHITE.

MEETING OF LICENTIATES OF THE SOCIETY OF APOTHECARIES.

To the Editors of THE LANCET.

SIRS,—Kindly permit me to call attention to a notice which appears in your advertisement columns of a meeting of Licentiates which is to be held at the Apothecaries' Hall, Blackfriars, at 4.30 P.M. on Dec. 1st next.

I am, Sirs, yours faithfully,

Oxford, Nov. 21st, 1903. A. RIVERS-WILLSON.

THE FUTURE OF ST. BARTHOLOMEW'S HOSPITAL.

To the Editors of THE LANCET.

SIRS,—I must decline to wade through the letter in your issue of Nov. 21st, signed "A St. Bartholomew's Man," as I never attach any value to anonymous communications and in this particular one most of the assumptions are incorrect and do not bear upon the point from which I do not intend to be drawn, viz.:—1. Shall St. Bartholomew's Hospital be rebuilt upon Sir Henry Burdett's plan or upon a plan advocated by the medical council, whichever may be the better of the two, at a cost of roughly £600,000, or shall it be altered and tinkered at a cost of £350,000? 2. Is the most richly endowed hospital in the world, possessing an income of about £100,000 per annum (representing at 2½ per cent. a capital of £4,000,000), justified in asking the public for money if the money is not to be well spent and the effects permanent? 3. If the public find the money asked for, are "they" to decide whether the hospital is (1) to be rebuilt or (2) to be altered, or is the treasurer, who is over 70, and the secretary, who has already exceeded his age-limit, who practically control and manage the hospital, to do as they may think fit? 4. I desire to obtain, if possible, from the medical staff or council a public and almost unanimous expression of opinion stating whether they are satisfied with the plan put forward or whether they consider more ground essential for the building of a proper hospital.

In conclusion, may I say it is my intention to attend at the public meeting to be held at the Mansion House on Jan. 26th, when the points I have raised will be brought up and the matter finally settled.

I am, Sirs, yours faithfully,

ANDREW MOTION,
Banbury, Nov. 21st, 1903. Chairman of the Cannon Brewery Co.

AUSTRALIAN WINES.

To the Editors of THE LANCET.

SIRS,—THE LANCET of Oct. 24th (p. 1173) contains a very interesting leading article headed, "The Vintage and its Relationship to Health." It is with the following sentences in the first paragraph that we propose to deal.

You state: "The wines produced in our colonies, which are invariably richer and stronger than those produced in France or Germany, would lose much of the crude qualities which are characteristic of them were they left to mature. While these wines, be it said, have many excellent points they cannot at present compete as regards delicacy or *finesse* with the more classic wines of French growth."

In respect to this remark permit us to say that the Australians have not the least intention of competing in types or styles with the wines of France or Germany, of Portugal or Spain, Madeira, Sicily, or any other country in the world. These countries, one and all, produce wines excellent in themselves and specially characteristic. Australian *vignerons* take a similar position and produce wines characteristic of Australia.

No palate worthy that of a connoisseur would mistake the wines of any of these countries. They are separate and distinct in flavour and in characteristics—as distinct also are the wines of Australia. Therefore, in sampling Australian wines will your readers please taste them on their merits; let them consider what to expect from the juice of full ripe grapes produced under sunshine such as is general in Australia, where every leaf is an advantage to the vine, or the sun—oftentimes over 100° F. in the shade—would scorch the berries. The resulting wine is allowed two years' maturation previous to shipment. The Australian wines most suited to our English climate could never become like the wines of the

colder countries we have mentioned and certainly would not compete with the wines of French growth. Why should they? We have from Australia wines more robust, more generous, more fruity, and natural in a greater degree than the so-called natural wines of any other country. Therefore, why compare the wines of one country with those of another? They all have their charm, whether of delicacy and *finesse*, or of fortified vigour on the one hand, or of natural vigeur n the case of Australia. Let us, therefore, accept on their merits the wines of each country but not forget that the wines from Australia are no more than they profess to be—natural wines pressed from the finest wine-making grapes in the world.

One other point. Australian vineyards are 12,000 miles away and produce as delicate, as refined, as elegant wines as France has ever sent to England, but distance from the source of production would be one reason why we should not import such light wines into England and another reason is that our lighter, thinner wines come into competition with the vineyards of France and Germany, whereas with our full-bodied, generous, robust wines no country in the world can compete. And these generous wines are, we find during 33 years' experience, the wines most in demand.

We are, Sirs, yours faithfully,

P. B. BURGOYNE & CO.

Dowgate-hill, London, E.C., Nov. 17th, 1903.

P.S.—A good description of the Australian wines imported into this country was given some time since in the *Standard* in which it was stated: "The Australian wines ..... are generous, well-flavoured, full of body, rich in bouquet, abounding in memories of the sun which begot them, ... and, like the wines of the ancients, will bear mixing with water."

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

A Medical Factory at Nasik.—Volunteers in India ignorant of English.—The Plague Epidemic.

THE scheme for establishing a factory at Nasik in the Bombay Presidency for the manufacture of drugs and other medical stores, which forms part of the general policy of making India as far as possible self-contained and self-providing against possible times of emergency, is now being steadily advanced. Colonel H. St. C. Carruthers, I.M.S., Madras, who was placed on special duty last year to push the scheme forward, has lately been in Simla conferring with the heads of the departments concerned.

Reports made at different times have drawn attention to the poor physique of the majority of volunteers in India. Now recently I hear of the inspector-general calling attention to the fact that many of the men cannot speak the English language and expressing the opinion that they should not have been enrolled. As a matter of fact, many of the men in some of the corps are pure-bred natives. These two serious complaints against the volunteers have opened the question whether conscription for all British, if not for all Europeans, should not be adopted for India. The mere physical training of compulsory service would be health-giving for all European residents in India who at the present time have to make sports in order to compel themselves to take exercise.

The plague mortality has again advanced, the increase being fairly general. The week's total figures were 18,177. Poona has once more shown signs of a recrudescence. A plague riot is reported at Coimbatore and an attempt was made to set fire to the plague camp. The disturbance was simply due to some precautionary measures which had been taken. Plague is at last dying down in Mhow. There is a decided increase in Bengal, especially in Patna, but in Calcutta the disease is quiescent.

Nov. 7th.

TORQUAY NATURAL HISTORY SOCIETY.—Miss M. Gray, at the meeting of the Torquay Natural History Society held on Nov. 16th, read a lecture on "Eisenach" which had been prepared shortly before his death by Mr. Paul Q. Karkeek, medical officer of health of the town for 25 years and a past president of the society.

POST-GRADUATE WORK ABROAD.

(BY A SPECIAL CORRESPONDENT.)

VII. NEW YORK.[1]

PRIOR to the year 1882 post-graduate studies were conducted without any well-organised system in the three medical schools of the city. Large numbers of medical men visited the city during the sessions of the schools for the purpose of studying special branches but they found no other opportunities than the attendance upon the regular lectures and an occasional clinical lecture on a particular subject in one of the hospitals. The result was a great waste of time, little really useful instruction of the kind sought, and a strong tendency to seek the advantages of foreign schools. During the period between 1850 and 1882 American medical students thronged the clinics of the schools of Paris and Berlin. Clinical teaching has been of very slow growth in New York. Though clinics can be traced back a century yet that kind of instruction was withheld from the student and given only to the practitioner. The schools, therefore, discarded clinics from their regular course of teaching and only occasional lectures were given to the small number of physicians who visited the hospital wards. With the opening of Bellevue Hospital, the great almshouse hospital of the city, about the year 1846, and the appointment of a staff of young physicians and surgeons who had been trained abroad, clinical teaching began to assume an importance that had never been given to it before. Students of every grade of advancement eagerly attended these lectures and often at the expense of the regular didactic course of the schools. In vain the faculties of the schools endeavoured to counteract the current; the hospital lectures increased in popularity from year to year until the schools were obliged to organise clinics as a part of the general course of daily lectures. It is now apparent that the early clinical lectures at the New York and Bellevue Hospitals were of high order and powerfully aided in dispelling the illusion that such instruction is harmful to the undergraduate. Students and practitioners alike crowded the amphitheatre when Professor Alonzo Clark, Dr. James R. Wood, Dr. Valentine Mott, Dr. Willard Parker, and others of like reputation gave clinical lectures.

The first decided step to systematise post-graduate studies was taken in 1861 by the organisation of the Bellevue Medical College which was established on the grounds of the hospital and its professors were the physicians and surgeons of the hospital. One of the distinguishing features of that school was the regular and systematic daily clinical lectures in the hospital wards. The school was a success from the first and clearly demonstrated to the other schools that the great want of medical students and practitioners was clinical instruction. From this time the schools began to attach more importance to a connexion with hospitals where instruction could be given and to create dispensaries where the poor would find gratuitous treatment and at the same time be subjects for clinical teaching. One of the most noticeable features of this increase of facilities for clinical instruction was the much larger number of medical men in attendance upon the sessions of the schools. As these physicians came from their practices in the country to study special subjects the schools began to add special teachers to their faculties who classified their clinics according to the nature of the diseases of those in attendance, as diseases of the eye and the ear, the skin, the throat and the nose, and so on. This creation of specialties met the wants of practitioners and recent graduates and became very popular, attracting physicians and students in large numbers from all parts of the country. The schools became crowded with these graduates seeking special privileges and so much time was given to the specialties for the benefit of graduates that in some of the schools the undergraduates were in danger of being neglected. This condition led to the agitation of the question of supplementing the regular faculty with a faculty devoted to the specialties and for a time this was a feature of the course of instruction in the schools, being known as didactic and clinical instruction combined. But this

[1] No. I. (Paris), No. II. (Berlin), No. III. (Vienna), No. IV. (Budapest), and Nos. V. (Florence) and VI. (Milan) were published in THE LANCET of Sept. 12th (p. 781), Sept. 26th (p. 912), Oct. 17th (p. 1121), Oct. 24th (p. 1194), and Nov. 21st (p. 1465), 1903, respectively.

arrangement had its disadvantages as the undergraduate course was interrupted daily by the special courses and the post-graduate courses lacked that continuity so essential to the needs of the attending practitioners. The University Medical College was the first to discuss the propriety of organising an independent post-graduate faculty having its separate course of lectures and giving its own diploma under the general direction of the regular faculty. This proposition was made by the corps of professors of special subjects who found it embarrassing to give their courses of lectures in a connected form in unison with the regular undergraduate courses. The proposition was not regarded as feasible by the governing faculty and on its refusal to create such a separate post-graduate faculty and course of instruction the professors of specialties determined to establish a separate and independent post-graduate school. They accordingly resigned in a body and at once undertook the great task of organising a purely post-graduate medical school, an enterprise hitherto unknown. There were many predictions of its failure on the part of the faculties of the schools which were all hostile to the movement, as if it succeeded it would attract from their numbers that large and increasing class of medical men who annually visited New York to obtain special instruction. To counteract the efforts of those engaged in establishing the new school the medical colleges increased their clinical facilities and largely added to their faculties teachers of the specialties.

It was in 1881 and 1882 that this new departure in medical teaching occurred and from this period may be dated the commencement of a new era in the department of medical education in this city. Coincidently with the movement to establish the Post-Graduate Medical College was the organisation of the New York Polyclinic Medical School and Hospital along the same lines and for the same objects. It is now upwards of 20 years since these schools began their operations and it is possible to-day to form an opinion of the results of their work. It may be premised by stating that they have been eminently successful in all that pertains to attracting large classes, to imparting useful knowledge on all medical subjects taught, and in securing financial support. Great credit is due to the promoters of these schools, Professor D. B. St. John Roosa of the Post-Graduate School and Professor John A. Wyeth of the Polyclinic, men of the highest standing in their profession in this country. There is no doubt that these schools have been largely instrumental in giving to New York a commanding position as a great centre of medical education.

Referring now to the special advantages which the medical schools and hospitals afford for clinical and post-graduate studies in this city the two schools devoted entirely to post-graduate teaching will be noticed first.

The New York Post-Graduate Medical School and Hospital was organised by the post-graduate medical faculty of the University of the City of New York on April 4th, 1882. It is an incorporated body under the laws of the State. It has a faculty of 55 professors, 25 adjunct professors, and 77 instructors, or a total of 157. The teaching of the school is entirely clinical or demonstrative. It has its own hospital with 205 beds, a babies' department with 54 beds, and an orthopædic division with 27 beds. It has a large dispensary service in the same building, a maternity in an adjoining building, and a training school for nurses. The laboratory is equipped for the most advanced instruction in bacteriology, histology, and pathology. The anatomical rooms are ample for teaching operative surgery. The babies' ward has a special operating room and a roof garden for summer use. The aim of the school has been to give personal instruction to the physicians who attend the clinics so that they may be qualified to carry out in their own practices the most approved methods of procedure. The practitioner is brought face to face with the patient and allowed to examine personally the case except when such examination would be detrimental to the patient. The school is exclusively for members of the profession whose credentials are satisfactory to the directors and who have a legal right to practise medicine in the States or countries from which they come; undergraduates are not admitted on any terms. The school year is divided into two distinct but continuous terms—viz., the winter and summer, the former extending from Oct. 1st to June 1st and the latter from June 1st to Oct. 1st. The scope of instruction includes all the specialties. The total registration for the last year was 639 and the number who have attended the school since it was opened is 8990.

The New York Polyclinic Medical School and Hospital was organised during 1881 and opened in 1882. It is chartered by the University of the State of New York. Its faculty consists of 29 professors, 13 adjunct professors, 21 lecturers, 28 instructors, and 42 clinical assistants, making a total of 133. There are two terms—viz., a winter term from Sept. 15th to June 14th and a summer term from June 15th to Sept. 14th; thus the school is in continuous operation. The school has its own hospital with 80 beds and its own dispensary. The terms of admission are the same as those of the Post-Graduate School and the methods of instruction are similar. The number registered last year was 340.

The Greater City has four regular medical schools in addition to the two post-graduate schools already mentioned. First, as regards age is the College of Physicians and Surgeons, established in 1807 and known as the "Old School." It is now the medical department of the University of Columbia. It has a faculty of 37 professors and 77 demonstrators and instructors, a total of 114. The clinical advantages to the students are as follows. The Vanderbilt Clinic is equipped with all modern appliances for the study and treatment of disease and was attended by 45,338 patients in 1902; the Sloane Maternity Hospital offers exclusive clinical advantages to the students of this school and contains 116 beds. The other institutions open to the free admission of students of this school are the New York Hospital, 150 beds; Roosevelt Hospital, 238 beds; Bellevue, 900 beds; Presbyterian, 350 beds; St. Luke's, 225 beds; General Memorial, 100 beds; New York Foundling Hospitals, 1500 children; Contagious Diseases Hospitals, 200 beds; Babies' Hospital, 50 beds; St. Mary's Hospital for Children, 120 beds; and Hospital for Ruptured and Crippled, 250 beds. This school has thoroughly equipped laboratories for every species of investigation which the student may require. The number of students registered last year was 795 and the number of graduates after a four years course was 168.

The Cornell Medical College is the Medical Department of Cornell University which is located at Ithaca, a small city some 300 miles from New York. It was organised in 1898 and has a faculty of 39 professors and 103 instructors, a total of 142. Its students have admission to hospitals in addition to those of the College of Physicians and Surgeons already mentioned: the City Hospital, with 1000 beds; Skin and Cancer Hospital, 100 beds; St. Francis' Hospital, 230 beds; and St. Vincent's Hospital, 250 beds. The Loomis Laboratory is a five-storey building fully equipped for every variety of study. The total registration last year was 394 and 60 graduated after a four years course.

University and Bellevue Hospital Medical College was founded in 1898 by the union of the University Medical College, organised in 1841, and Bellevue Hospital Medical College, organised in 1861. The faculty consists of 26 professors and 81 instructors, in all 107. The same hospitals that have been mentioned as furnishing clinical materials for the other schools are open to this school and in addition the Columbus Hospital, the Manhattan State Hospital for the Insane, and the Lying-in Hospital. The total registration last year was 311 and the number of graduates was 73.

The Long Island Hospital is located in the borough of Brooklyn and was organised in 1858. It has a faculty of nine professors and 64 instructors, a total of 73. Its clinical facilities consist of the College Hospital, with 300 beds, and the following general hospitals to which its students have free access: King's County, St. John's, Brooklyn, Norwegian Williamsburg, Methodist Episcopal, and Brooklyn Eye and Ear. The Hoagland Laboratory, thoroughly equipped with all modern apparatus, belongs to the college. The total registration last year was 290 and the number of the graduates 40.

It may be stated in conclusion that at the present time the clinical resources of New York, with its 30 hospitals and 75 dispensaries, are inexhaustible. These institutions open their doors to the professors and the teachers and allow the materials to be utilised. And it is a gratifying fact that the change in the methods of teaching from mere formal lectures by six or seven professors in each school to the class recitations with a large corps of young men as instructors is stimulating the recent graduates to seek early entrance to the hospitals and the dispensaries for the purpose of becoming teachers. The number of teachers in the six schools noticed above is 726, every one of whom has an official connexion with a hospital, a dispensary, or a

laboratory. Thus the city is being supplied with an ever-increasing number of high-grade instructors in every department of medicine. Already it is very noticeable that the drift of medical graduates to European schools to study specialties has almost ceased, while the attendance upon the post-graduate schools is yearly increasing.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Hospital Sunday Fund: Annual Report.

THE committee reports another satisfactory year's work and notes with much pleasure that with advancing years this fund appears to deepen its hold on the affections and confidence of the charitable public and that the steady growth observable both in the Sunday and Saturday funds in recent years has been well maintained this year. The receipts of the Hospital Sunday Fund for 1903 amount to £6681 13*s.* 11*d.*, as against £6548 2*s.* in 1902. A slight change in the method of distribution has been introduced this year, a proportion of the total receipts being reserved for special grants to institutions whose circumstances seemed to justify special consideration. In no case, however, was the grant to any institution less than that of last year. New grants were made to the Hospital for Cancer and Skin Diseases and to the Samaritan Hospital for Women. The slight increase in the expenses (£53 14*s.* 4*d*) is due to the extra advertising of Hospital Sunday in the daily local papers. No successor has yet been appointed to the late assistant treasurer and secretary. The committee deeply deplores the loss through death of Mr. John Brancker, Mr. Edward Mounsey, and Sir James Poole and regrets that it loses the services through removal of four ministers of religion. There is a balance in the bank of £231 18*s.*

Hospital Saturday Fund: Annual Report.

At the annual meeting of the Hospital Saturday Fund held on Nov. 20th the report showed that the systematic collections made in the various places of business were steadily increasing. The total amount (exclusive of interest) raised this year was £8045, an increase of £363 over that of the year 1902. The Lord Mayor (who presided) moved the adoption of the report and said that there was no more interesting or important charity organisation in the city than that of the joint Sunday and Saturday Funds. There were those who suggested that the hospitals should be placed on the rates. He for one would certainly deprecate any such scheme and he did not believe that there was any prospect of that coming about. He could not conceive of the damming up of the fountains of charity which, through the medium of those two organisations alone, were responsible for the large sum of £14,000 a year. But he thought the hospitals might very well be relieved from the payment of rates. That was a legitimate object to work for and he thought they might very well take into consideration how they could best bring that about. Those institutions afforded very sensible relief to the rates of the city and he thought that boards of guardians should assist the hospitals by making grants in compensation for those cases which, if such charities did not exist, would be compelled to go to the parish infirmary. The late Lord Mayor (Mr. W. W. Rutherford, M.P.) also advocated some such system in addressing a similar meeting during his year of office (if I mistake not).

Sanitation in West Africa.

At a meeting of the African trade section of the Liverpool Chamber of Commerce held on Nov. 9th a letter was read from Major Ronald Ross, C.B., F.R.S., the director of the Liverpool School of Tropical Medicine, commenting on the reply made by the Colonial Office to the suggestions of the Chamber that a sanitary commissioner should be appointed for West Africa and certain other points in connexion therewith. Major Ross strongly advised a conference between the chambers of commerce interested and the Colonial Office after the return of Sir William McGregor, K.C.M.G., who has made himself thoroughly conversant with the sanitary needs of West Africa. It was resolved to communicate Major Ross's suggestion to the chambers of commerce interested.

Liverpool Deputation to the Colonial Secretary on West African Affairs.

Mr. Lyttelton, the Secretary for the Colonies, received a deputation on Nov. 19th from the African trade section of the Liverpool Chamber of Commerce on the subject of West African affairs. Amongst the delegates representing the Liverpool School of Tropical Medicine were Professor R. W. Boyce, F.R.S., and Major Ronald Ross. Professor Boyce spoke of the work done by the Liverpool and London Schools of Tropical Medicine in investigation, teaching, and the organising of expeditions of research and referred to the great results which had come from this movement initiated by Mr. Joseph Chamberlain. Major Ross also addressed the Colonial Secretary in the same direction. Mr. Lyttelton, in reply, said that he associated himself strongly with the desire of his predecessor that all practical assistance should be given to the Schools of Tropical Medicine which had done such excellent work.

Sleeping Sickness: Report from the Liverpool Expedition to the Congo.

The first report has now been received from the members of the expedition of the Liverpool School of Tropical Medicine which was sent to the Congo Free State with the coöperation of the King of the Belgians. The expedition reached Boma on Sept. 23rd and it was arranged with the Vice-Governor-General that it should inspect and report upon the sanitation, from the point of view of "mosquito prophylaxis," of Boma, Matidi, and Leopoldville. Later, the expedition will proceed to some locality which seems suitable for beginning research work. The Governor and all the State officials were most courteous and obliging and offered to help in every way. Quarters have been supplied in Boma and will be provided in Matidi and Leopoldville by the State and the local State physicians have placed the native hospital, where there are about ten cases of sleeping sickness, at the disposal of the expedition. Up to the date of writing the members of the expedition had examined 51 various native hospital cases and had already performed two necropsies on cases of the disease. A missionary informed the members of the expedition that last year 4000 people died from this disease in the district of Watken and it was stated that the depopulation of the country was feared at Bundunda at the confluence of the Kwango and Kassai rivers. Pest camps have been established in various districts in accordance with the Governor's orders and cases are isolated in them under the care of soldiers as they occur. The Government hopes by these measures to check the spread of the malady. The natives, in some places at least, have acquired a lively dread of contagion. They are said to refuse to touch the effects of a man who has died from sleeping sickness or to eat with him while alive and cases of the desertion of villages in which the disease has appeared are common. The expedition has written to missionaries and has also requested the Government to indicate to it a place in which there is a large native population among whom sleeping sickness has been endemic and has now become epidemic. It has asked to be informed if it can obtain living facilities and if the natives are amenable to the control of the local whites. The expedition will proceed to whatever station seems best to fulfil these conditions for the purpose of getting general information concerning the disease. It has drawn up a list of questions on lines very similar to those sent out by the Royal Society. The Congo State is printing them and copies will be sent to the various Government officials throughout the Congo, as well as to missionaries and trading firms. A further letter, dated Oct. 26th, has been received by Sir Alfred Jones, K.C.M.G., the chairman of the Tropical School of Medicine, from the members of the Congo expedition. They state that they were leaving for Matidi on Nov. 1st. The Governor has placed a State steamer at their disposal for the trip. They say that the Congo is certainly the right place to go for human trypanosomes. They have already seen 18 natives—not cases of sleeping sickness—in whose blood trypanosomes were found. They promised to send a short report by the next mail. It will deal with the distribution of mosquitoes in Boma, will give their observations up to date on trypanosomiasis and sleeping sickness, and will contain an appreciation of the conditions existing in Boma from a mosquito-mala riapoint of view.

The Royal Southern Hospital: Anniversary Sermon; Appointment of Honorary Physician.

There was a large congregation at St. James's church on Nov. 22nd, on the occasion of the anniversary sermon on behalf of the Royal Southern Hospital. The Lord

Mayor attended in state. The pulpit was occupied by the Rev. J. B. Lancelot, M.A. (the principal of the Liverpool College), who made an earnest appeal for a larger measure of public support of the charity. The collection realised £74 9s. 9d., as against £60 13s. 1d. last year. At the conclusion of the service the Lord Mayor, with whom was the Lady Mayoress, visited the hospital. His lordship was numerously and representatively accompanied in the tour of the building, with the arrangements of which he expressed himself much pleased.—The election to the post of honorary physician, vacant by the resignation of Dr. William Williams, took place to-day (Nov. 24th). Dr. John Lloyd Roberts, honorary physician to the Stanley Hospital, received a majority of votes over the other two candidates and was declared duly elected. The electorate (unlike the system of electoral committees adopted at the Royal Infirmary and David Lewis Northern Hospital) consists of subscribers of two guineas and upwards, two lady trustees being allowed to vote by proxy.

Nov. 24th.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

New Workhouse Infirmary at Axbridge.

THE Axbridge board of guardians is among the most progressive in the whole country. The guardians have recently erected very excellent tramp wards at a cost of £1600, they have lighted their workhouse with electric light at a cost of £850, and a new infirmary connected with the Axbridge workhouse was formally opened on Nov. 14th by Mr. Walter Long, the President of the Local Government Board. There is accommodation in the new building for 72 patients and the cost works out at about £120 per bed. On each of the two floors there are two 12-bed wards and six two-bed wards. The amount of floor space per patient is 72 feet and of air space about 1000 cubic feet. There are two day rooms provided with wide bay windows on the southern side of the building and along the whole length of this side there runs a verandah the upper portion of which can be utilised as a fire-escape. There are a small kitchen lift and a larger lift for patients. The building is warmed by hot-water pipes and is lighted by electricity. At the opening ceremony Mr. Long made some remarks in connexion with the care of pauper children, with regard to which he thought there was for the guardians the widest and brightest field of work that they could possibly find. It was difficult for children brought up within the walls of a workhouse and surrounded by workhouse traditions to become independent self-respecting citizens and he urged that they should be placed under the normal conditions of childhood where they could lead the sort of life which children in their position would lead if they were in their own homes and with their own parents. Instead of continuing a race of paupers we should then be turning out into the world men and women trained and educated in their minds and bodies so as to be useful citizens.

Cardiff Infirmary.

Two years ago Mr. Leonard D. Rea, the secretary to the Cardiff Infirmary, devised a scheme which has proved eminently successful for the purpose of eliciting sympathy and assistance in procuring structural improvements and additions to the institution. Instead of asking for a lump sum the managing committee ascertained the actual cost of various requirements and then placed the different items before the people of Cardiff. For example, they stated that electric light could be installed for £1000, whereupon the Marquis of Bute sent them that amount for that specific purpose; a pavilion for the electrical treatment of phthisis was estimated to cost £1450 and this sum was forthcoming from an anonymous lady; verandahs for open-air treatment could be erected for £700, and Lord Tredegar offered to defray this expenditure. There are still requirements not yet carried out which will cost over £5000, including fire-extinguishing apparatus to cost £450, indoor telephones to cost £178, laundry improvements £300, and improved cooking and heating apparatus. The latest addition is a new accident receiving ward and out-patient dressing-rooms given by Mr. Thomas Webb of Tunbridge Wells at a cost of over £1000. Mr. Webb was the donor a few years since of a new operating theatre and his last gift has been designed on the same lines so as to be as aseptic as possible. The terrazzo flooring, tiled and cemented walls, rounded corners, and absence of ledges offer no resting places for dust and the rooms can be cleaned out with a hose. The shelves in use are made of marmorite, a material consisting of plate glass into which colouring matter has been introduced. The only adverse criticism that it appears possible to make is in connexion with the inlet ventilators which are quite incapable of being cleaned out and will thus be dust receptacles. Leading out of each of the two dressing rooms which are 18 feet square there is a smaller room 18 feet by 9 feet. This very admirably designed addition to the infirmary buildings was formally opened on Nov. 18th by Sir John Williams who took the opportunity of advising the establishment of a branch convalescent hospital within a few miles of Cardiff in order to relieve the pressure on the infirmary itself. That this or some other scheme of extension is required is evident from the statement that during the past six months there have been 300 patients always awaiting admission to the wards and of the 184 beds in the institution 164 are in occupation.

The Incorporated Society of Medical Officers of Health.

At a meeting of the West of England and South Wales Branch of the Incorporated Society of Medical Officers of Health held at Bristol on Nov. 20th under the presidency of Mr. J. Tubb-Thomas, medical officer of health of the county of Wiltshire, there was a discussion upon certain aspects of the question of the prevention of tuberculosis. Definite resolutions were passed to the effect that it is desirable where practicable to utilise existing isolation hospitals for the isolation of cases of phthisis; that compulsory powers of isolation should not at present be extended to phthisis; and that in principle the compulsory notification of phthisis is desirable. Mr. C. W. Vickers, the medical officer of health of Paignton, spoke very strongly as a general practitioner in opposition to this last resolution and declared that if notification were enforced an immense amount of harm would follow.

University College, Bristol.

The annual meeting of the governors of University College, Bristol, was held on Nov. 18th, under the presidency of the Bishop of Hereford. A satisfactory record for the session 1902–03 was presented. The report referred with "much regret to the death of Professor Joseph G. Swayne, who was elected to the first chair of midwifery and on his retirement the title of professor emeritus was conferred upon him in recognition of his long and valuable services." Dr. A. B. Prowse was elected as representative of the faculty of medicine on the council of the College for the ensuing three years. Mr. Morris W. Travers has been appointed to the chair of chemistry, vice Professor Sydney Young, F.R.S. Mr. F. E. Francis, the lecturer in chemistry, has been appointed assistant professor of chemistry.

Hospital Sunday Fund in Bristol.

A meeting of the friends of the Hospital Sunday Fund in Bristol was held in the council house on Nov. 19th, the Lord Mayor presiding. It was reported that the amount received for the fund in 1903 was £1565, being £45 less than in 1902. This sum had been allocated as follows: Royal Infirmary, £609; General Hospital, £511; Children's Hospital, £189; Eye Hospital, £91; and smaller sums to the Orthopædic Hospital, Lock Hospital, Eye Dispensary, Bristol Dispensary, Clifton Dispensary, and the Medical Mission. It was decided that the last Sunday in January should be observed as Hospital Sunday in 1904.

Nov. 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Royal Army Medical Corps (Volunteers): New Headquarters at Aberdeen.

THE Royal Army Medical Corps (Volunteers) has secured new headquarters in the back portion of the Albert Hall Buildings, Aberdeen, entering from Union Wynd. Accommodation for office, stores, &c., has been provided, while the corps will have the use of the large hall or of one of the smaller halls in the building on four nights of the week for drill purposes. In addition to the office a waiting room has been acquired in which the men may forgather when awaiting the commencement of drill, while the store-rooms are

commodious and very suitable for the purpose for which they are intended. In these new headquarters the work of the corps will be carried on much more conveniently than at present.

Aberdeen Medico-Chirurgical Society.

The annual meeting of this society was held on Nov. 19th when the following office-bearers were elected for the year. President: Dr. J. Theodore Cash. Vice-President: Dr. George Rose. Secretary: Dr. John Marnoch. Recording secretary: Dr. Ashley W. Mackintosh. Treasurer: Dr. William Findlay. Librarian: Dr. Peter Howie. Members of council: Dr. G. M. Edmond, Dr. D. W. Finlay, Dr. Angus Fraser, Dr. J. Gordon, Dr. Gray, and Dr. George Williamson.

Nov. 24th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS).

Dublin University Biological Association.

THE opening meeting of the Dublin University Biological Association was held in Trinity College on Nov. 19th, when the President, Mr. R. Charles B. Maunsell, delivered the inaugural address on Surgical Intervention in some Gastric Diseases. Mr. Maunsell in the course of his address said that the subject which he had chosen, although practically unknown ten years ago, had already grown to such dimensions that it would be impossible to treat it in an exhaustive manner. Mr. A. W. Mayo Robson proposed that the best thanks of the association be given to the President for his address. He strongly urged the necessity of surgical treatment in gastritis where within a reasonable time medical measures had failed to give relief and pointed out that where 25 per cent. of cases treated medically terminated in death the mortality was only 5 per cent. when surgical methods were adopted. Sir Charles Ball, in seconding the motion, said that a few years ago the surgical treatment of diseases of the stomach might have been discussed in a few paragraphs; to-day it would fill a large volume.

Dinner to Professor D. J. Cunningham, F.R.S.

The past and present students of the medical school of Trinity College gave a dinner at the Shelbourne Hotel on Nov. 19th to Professor Cunningham, who for a number of years had filled the chair of anatomy in that school. He was presented with a massive loving cup of Celtic design. Professor A. E. Dixon presided and a large and distinguished company were present to do honour to the principal guest.

The Belfast Maternity Hospital

Out of a large number of applicants Dr. R. J. Johnstone has been elected physician to the Belfast Maternity Hospital, in place of Dr. John Campbell who has resigned the position of visiting physician.

An Outbreak of Fever at Enniskillen.

There are at present 18 patients in the Enniskillen Fever Hospital suffering from typhoid fever, scarlet fever, or diphtheria, 12 admissions having taken place during the last few weeks. Mr. John Wilson, the medical officer, has reported to the guardians that the responsibility must rest with them as he predicted and stated what was likely to occur to no purpose. The chairman said he would protect the board and would not allow the medical officer or anyone else to jump on it, but he agreed as to the need of a disinfecting chamber.

The Belfast Sewage.

At a meeting of the Belfast harbour board held on Nov. 17th one of the members drew attention to the insanitary state of the Belfast Lough owing to it being the receptacle of the city sewage which, with the ebb and flow of the tide, is simply deposited on the banks of the lough. By an Act passed in 1899 the corporation of Belfast was required to abate this nuisance within three years and it appears that it is constructing bacteria beds to cope with the problem, but it should be stirred up to complete the work without further delay.

Ulster Medical Society.

The annual dinner of the Ulster Medical Society was held in the Medical Institute, Belfast, on Nov. 20th, Dr. John Campbell, the President, being in the chair. There was a good attendance of members. The following were the toasts: "The King," proposed by the President; "The Lord Lieutenant and Prosperity to Ireland," proposed by the President and responded to by Dr. J. R. Davison; Professor J. A. Lindsay gave the toast of "The Irish Medical Association," to which Dr. L. Kidd (Enniskillen), President of that association, replied; "The Queen's College and Belfast Medical School" was proposed by Dr. F. McLaughlin, the President of the Ulster Branch of the British Medical Association, and the President of Queen's College, Dr. J. W. Browne, and Professor T. H. Milroy replied; Mr. P. C. Cowan, C.E., engineer-in-chief to the Local Government Board of Ireland, proposed "Our Distressed Brethren." The last toast was "The President of the Ulster Medical Society," given by Sir W. Whitla, to which the President replied. During the evening Dr. J. E. MacIlwaine, Dr. H. L. McKisack, Dr. J. McHarry, and Dr. Leslie contributed songs.

Nov. 24th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Range and Increase of Hearing in Deaf-Mutes.

AT the meeting of the Academy of Medicine held on Nov. 3rd M. Gariel read for Dr. Marage the results of some experiments made at Bourg-la-Reine for developing and measuring the range of hearing in deaf-mutes. 24 children who were perfectly deaf were taken and divided by drawing lots into two groups. The odd numbers served as controls and the even numbers were treated regularly day by day with vibrations from an apparatus which has already been employed in the treatment of deafness due to sclerosing otitis. At the end of six weeks all the children treated could hear the sounds of musical instruments although they had never heard anything before. Three of them could hear phrases pronounced close to the ear and two could follow a conversation with a person speaking at a distance of one metre and without raising the voice. M. Gariel laid stress upon these excellent results and in addition pointed out that hitherto it has been found impossible to express in exact terms the degrees of hearing possessed by deaf-mutes but that now, thanks to a siren (*sirène à voyelles*) invented by Dr. Marage they can be easily ascertained.

A New School for Hospital Nurses.

Among the improvements in hospital administration laid down in the plans which have been drawn up on such a large scale and approved by the municipal council is one for the foundation of a school where those who intend to become nurses will have a thorough training both theoretical and practical, capable of fitting them in every respect for the career which they have chosen. The plans have just been submitted to the municipal council. The buildings will be erected on some vacant land belonging to the Salpêtrière and are designed for 150 students who will be divided into two groups. On the ground floor the management and those in charge of each group will be accommodated. There will also be a lecture theatre, two refectories, recreation rooms, school rooms, and a library. The students will be lodged upon the upper floors and everyone will have a room to herself, of a fair size well-lighted, and supplied with a lavatory apparatus. The building will be so arranged that the officials in charge will be enabled to exercise constant supervision over the pupils. The total expenses will amount to about 1,000,000 francs.

Pancreatic Opotherapy in Diabetes.

M. Lafitte has recently made some experiments in the treatment of diabetes by pancreatic opotherapy. He chose cases of diabetes with arthritis, of diabetes with wasting, and of simple glycosuria in arthritic patients. He read a paper on the subject at the meeting of the Hospitals Medical Society which was held on Nov. 13th. The results of opotherapy are practically the same as those obtained by the use of fresh raw pancreas. Shortly they are as follows. There exist a certain number of cases of constitutional diabetes which are favourably affected by pancreatic opotherapy. The glycosuria diminishes and may even almost disappear, the hunger and thirst become less, the genital troubles are much improved, and so also is the general health. The same results are obtained by the use of fresh raw pancreas. The gland must be given raw as soon as possible after the death of the animal. This is an absolutely

essential condition of success. A delay of even a few hours or the application of a very slight degree of heat so modifies the action of the gland as to render it practically useless. The improvement in the degree of glycosuria is very fleeting and lasts for barely a week.

The Annual Proportion of Errors in Diagnosis committed by Military Surgeons.

When the vote for the War Department came before the Chamber of Deputies the other day a deputy brought up two cases in which he alleged that the military surgeons had failed to recognise diseases in soldiers which were more or less serious. The Minister of War gave the following answer. The number of military surgeons is 1500, by far the great majority of whom are hard workers and thoroughly conscientious. If any carelessness is proved the War Office punishes it severely. To give some idea of the annual proportion of possible mistakes the Minister had consulted a medical man, who is also a senator, and had been favoured with the following argument. Suppose that in a service of 30 years every military surgeon makes one mistake, the proportion of mistakes calculated on the basis of 1500 medical officers, every one serving for 30 years, would be 50 mistakes every year. But this figure is above the mark and the number of mistakes tends to grow less and less, for the whole military medical department knows that errors are no excuse and they are supported in this opinion by their feelings of professional honour.

Antituberculous Dispensaries.

On all sides efforts are being made to combat the terrible plague of tuberculosis both by care of the sick and protection of the healthy. Here are the figures published by the Municipal Bulletin of Statistics in regard to the deaths from tuberculosis per 10,000 inhabitants in those districts of Paris where the antituberculous dispensaries are in working order. The mean figures for the district of Clignancourt for the last two and a half years are 43·2 in place of 74·2 which was the mean for the period 1892–96. For the district of Grands-Carrières the mean of the last two and a half years is 47·97, instead of 69·6 as in the period 1892–96. For the district of Gouttes d'Or the mean for the last two and a half years is 52·47, instead of 67·10 as in the period 1892–96. For the district of Chappelle, the mean for the last two and a half years is 48·33 instead of 58·6 as in the period 1892–96.

Nov. 24th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Etiology of Dysentery.

Staff Surgeon Dr. Jürgens has published in the *Deutsche Medicinische Wochenschrift* an account of bacteriological researches carried out by him during an epidemic of dysentery which broke out in a regiment in the exercise-camp of Gruppe in Western Prussia. The epidemic extended to 26 men who presented typical symptoms—namely, severe diarrhœa, hæmorrhage from the bowels, and prostration. These 26 men were admitted into the military hospitals and in addition to them there were a number of men who suffered from diarrhœa and were treated in the barracks. All the patients recovered in from three to four weeks. The microscopical examination proved that neither entamœba histolytica nor any other protozoon was present in the bowels. Bacteria, of course, were present and Dr. Jürgens detected a bacillus very similar in form and culture characteristics to Kruse's dysentery bacillus, but showing differences under the agglutination test; probably this bacillus is identical with the bacillus discovered by Dr. Flexner in the Philippine Islands. In other epidemics of dysentery Kruse's bacillus is commonly found in pure culture in the bowels during the first days of the disease and this bacillus is therefore believed to be the specific germ of dysentery, although the bactericidal action of the serum against the bacillus has not yet been ascertained. In the recent epidemic the bacillus of Dr. Jürgens was agglutinated by the blood serum of almost all the patients both during the attack and during convalescence. The serum taken from patients up to the second day from the beginning of the illness had no agglutinative effect, but on the third day and afterwards it agglutinated the bacillus of Dr. Jürgens but not the dysentery bacillus of Kruse. Dr. Jürgens therefore infers that the etiology of dysentery is not in all cases the same, as it is not caused always by Kruse's bacilli but sometimes by another species. The disease, though a definite entity as to its clinical symptoms, shows marked differences from a bacteriological point of view.

Professor Virchow's Library.

At the last meeting of the Berlin Medical Society the librarian, Professor Ewald, announced that the widow of the late honorary president, Professor Virchow, had presented the library of her deceased husband to the society on condition that it should be kept separately as a special department of the society's library. By this magnificent gift the number of books of that library becomes increased by about 7000 volumes. The deceased savant was a first rate bibliophile and had collected a large number of rare books, especially valuable in respect of ethnology, anthropology, and the history of medicine. A detailed catalogue will be issued within the next few months.

The German Emperor's Health.

The announcements relative to the Emperor's health continue to be very satisfactory. It will be remembered that the operation was performed on Nov. 7th and a bulletin issued about ten days afterwards stated that the small wound was nearly healed and that his Majesty was allowed to speak in a whisper. No further bulletins will be issued. The Emperor in fine weather walks every day in the great park of Sanssouci and has already attended a musical performance in his residence. Notwithstanding the favourable news published by the court journals some degree of uneasiness still haunts the public mind owing to the fact that his Majesty's convalescence is obviously less rapid than was originally anticipated. Moreover, he was desirous of attending the ceremony of the oath sworn on the colours by the recruits of the Guards. This ceremony takes place in the Castle square in Berlin and since his accession to the crown the Emperor has always been present and has addressed the soldiers. On this occasion the ceremony was postponed several times and has now taken place in the absence of the Emperor who, however, sent a representative. Some time ago it was rumoured that the patient would have to winter in a southern climate and this, which was at first denied by the official press, is now confirmed. It is understood that the Emperor will not visit a health resort but will cruise about the Mediterranean in his yacht. It is, moreover, announced that he will not start before the month of January and that this trip has been proposed, independently of the local affection of the vocal cord, only for the purpose of providing him with some relaxation and of sparing him the rigours of a Berlin winter. For medical readers the fact that arrangements have been made for a long journey to commence about two months after the operation proves that the medical attendants of the Emperor have no doubt as to the absolute innocuousness of the growth which has been removed, as otherwise a further operation would become urgent within that time. The public, however, are not so optimistic and are only too willing to listen to sensational gossip. The surgeon in attendance on his Majesty, in addition to his physicians-in-ordinary, Dr. Leuthold and Dr. Ilberg, is Professor Moritz Schmidt of Frankfort, one of the most celebrated laryngologists of Germany. He was one of the late Emperor Frederick's medical advisers during his fatal illness and about six months ago he gave up his very extensive practice in Frankfort. He will stay in Berlin until the recovery of his illustrious patient is complete. Professor Schmidt lately attended a meeting of the Berlin Laryngological Society, of which he is a corresponding member, and the chairman, Professor Fränkel, having congratulated him on his successful operation Professor Schmidt replied that the element of interest was the patient and not the operation which was performed frequently by every laryngologist.

Death of the Princess Elisabeth of Hesse.

Coincidently with the Emperor's indisposition a sad event has occurred in another reigning family of Germany. The Princess Elisabeth, daughter of the Grand Duke of Hesse, whilst on a visit to the Imperial Court of Russia at Skierniwice, unexpectedly died after only a few hours' illness with the symptoms of an infectious febrile disease. At a necropsy which was made by Professor Orth of Berlin (who also examined the polypus removed from the Emperor's larynx) the cause of death, notwithstanding sundry vague rumours to a different effect, was ascertained to be enteric fever.

Nov. 24th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Sanitation of Sleeping cars.

AT the recent meeting of the American Public Health Association held at the city of Washington the subject of the spread of contagious diseases through the medium of insanitary sleeping cars was discussed with great interest by medical and lay members of that body. It was not difficult to prove that these cars are rarely thoroughly clean and wholesome and it was finally admitted by a representative of the principal sleeping or "Palace Car Company" that the blankets were washed but once a year. It has long been known that railroad companies are very negligent in regard to sleeping cars and health authorities have frequently suspected that local outbreaks of contagious diseases were due to the transmission of their germs in filthy passenger cars, but the admission of the fact that the bedding of the most popular sleeping-cars of the country was washed but once a year was a revelation of startling significance to the entire country. If it is true that this company has so little regard for the health, comfort, and even decency of the public what can be the condition of the sleeping-cars of ordinary roads? Already the public are questioning the propriety of travelling at night when it can be avoided.

Perils of the Street.

The thoroughfares of New York have become exceedingly perilous to the pedestrian. The congestion at many points is so great that one crosses the street at the risk of one's life. This fact finds a striking illustration in the police returns of two weeks. It appears that during that period 125 accidents to pedestrians were reported as due entirely to traffic. These accidents were of such severity as to require hospital treatment and a multitude of minor injuries are excluded. The larger number of injuries are fractures. The police attribute these accidents to careless driving of carriages, trucks, and carts, the recklessness of automobile drivers, the unfitness of motor-men of trolley cars, the imprudence of bicyclists, and the large number of boy drivers. Though the law is very stringent in regard to the age of drivers of wagons it is not enforced and the result is that the streets are often crowded by every conceivable form of vehicle with reckless boy drivers who by their daring and carelessness cause the entanglement which ends in disaster.

Dr. Lorenz's Visit to the United States.

There has been much discussion of the conditions which brought Dr. Lorenz to this country and the results of his visit upon the treatment of congenital dislocations at the hip-joint. It now appears that the child whom he was called upon to attend was in charge of Dr. Ridlon of Chicago, a very competent orthopædic surgeon. Dr. Ridlon operated on both of the dislocated limbs of the child, employing Lorenz's method. The operation was successful so far as relates to the reduction of the dislocations. When, however, the dressings were removed at the proper time and after an interval of a few days the right femur slipped out of place while the left remained, and still remains, in good position. It was then decided to call Dr. Lorenz to the case and accordingly he was summoned to this country. He repeated his operation on the relapsed limb and replaced it in the position which it occupied when Dr. Ridlon operated. After allowing it to remain in this position for a long period Dr. Lorenz returned and removed the dressings. The head of the femur of the relapsed limb is still in the position in which it was placed by Dr. Lorenz, though the reposition is not regarded as complete. The functions of the new joint are fairly well performed. The only criticism on the whole procedure is that Dr. Ridlon was entitled to another trial, for his success with the left hip was complete and the operation was in a measure successful on the right. A second attempt would have secured, it is believed, results equally as good as were obtained by Dr. Lorenz. But in a larger and more important sense the visit of the Austrian surgeon has accomplished excellent and far-reaching reforms in the care of crippled children throughout the entire country. Much as the discussion of Dr. Lorenz's operation by the public press was condemned, it was by that means undoubtedly that the widespread public interest in the crippled, deformed, and defective classes was excited. On every hand private institutions for the care and treatment of these unfortunates are being organised and this movement has led to similar action on the part of municipalities and lately of States.

Larceny of Antitoxin.

The city of New York, through its Board of Health, has been, and still is, distributing free of charge to the poor people antitoxin to be used as a preventive against, and cure for, diphtheria. The method of procedure is to put the remedy in small phials and to consign them to certain druggists and to authorise them, on the presentation of a proper certificate by any physician of the city, to deliver to such physician free of charge, for the use of a poor patient, one or more phials of the antitoxin, the certificate stating that this antitoxin is for the treatment of a poor patient to whom payment for the same would be a hardship. A physician obtained three phials of this antitoxin on one of these certificates and used it in a case where he knew the patient was able to pay. He was prosecuted on this charge and the court held that he was an agent of the city to administer the antitoxin to the patient for whom he obtained it, provided she was unable to pay for it, and only in that event. But it appeared that he administered the antitoxin knowing that his patient was able to pay and therefore deviated from the terms of his agency and did so to his own pecuniary gain and advantage. In other words, he appropriated the antitoxin to his own use and rendered himself amenable to the penal code which declares it to be larceny for one to appropriate to his own use public property in his control.

A Crusade against Adulterated Food

The State Dairy and Food Department of Pennsylvania has begun a crusade against adulterated foods and the results show the immense extent of the practice of tampering with human foods. In one month 200 prosecutions were commenced and $6000 were collected in fines. Upwards of 100 dairymen in the western portion of the State have recently been prosecuted and fined for putting formaldehyde in milk. Grocery firms when arraigned acknowledged selling adulterated goods, brandy, vinegar, lemon extract, &c. While it is admitted that many firms sell adulterated goods ignorantly these prosecutions are extremely useful in compelling every dealer in foods to examine carefully the quality of all articles which he purchases and thus the reform will progress.

Increased Human Longevity.

The International Congress of Insurance Actuaries recently held in New York had under discussion the question of the present prospects of human life. It appears that the fact was established that the average of life in civilised countries has been materially lengthened. This improvement was attributed to the growth of hospitals, the advance of improvements in the practice of medicine and surgery, and the more enlightened care of the poor, and especially of children. It is interesting to note the influence of widespread epidemics on the mortality rate. Thus the small-pox epidemic of 1870–74 caused an increased death-rate among all classes and ages; in the period 1880 84 the wide distribution of diphtheria, scarlet fever, and measles markedly increased the mortality among children; and the epidemic of influenza of 1891 caused a high death rate among adults. In commenting on these facts various views were expressed. One contended that the increase in longevity was not with the strong but with the weak and feeble owing to better care. Another believed that child life was now conserved as never before and hence there was a diminished average mortality. Probably these causes are only a part of a large category of efficient causes of increased longevity. The interesting fact remains that actuaries are adjusting their life risks to new conditions.

The New Harvard Medical School.

Harvard was the first of the older medical schools to take advanced ground in the improvement of medical education and the prediction was freely made that it would suffer as a consequence. It was even predicted that its classes would disappear owing to the lengthening of the term to four years and to the high standard of qualification exacted from those who entered its portals. These prophets of evil have been sorely disappointed, for instead of diminished classes they have steadily increased, money has flowed into its treasury from quite unexpected sources, and now it is about to construct an entirely new plant. The administrative building will be 166 by 124 feet and will cost $535,000; the physiological laboratories will cost $421,000; the laboratories for bacteriology and pathology will cost

$390,000; histology and anatomy will have a building costing $396,000; and pharmacology and hygiene will require a structure at a cost of $346,000. When this series of buildings is completed Harvard will have no peer in equipment in this country.

Nov. 19th.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

The Annual Report on Charitable Aid and Hospitals: Increased Expenditure.

THE total expenditure on charitable aid in New Zealand in 1901 was £79,673, in 1902 it was £88,848, and for the year ending March 31st last it amounted to £93,158. The amount distributed on outdoor relief for the year ending March 31st, 1902, was £38,934 and for the year ending March 31st last it amounted to £43,421. In the four large towns the expenditure on outdoor relief alone was as follows:—Auckland Charitable Aid Board, £4923; Christchurch Charitable Aid Board, £7356; Dunedin Benevolent Trust, £6048; and Wellington Benevolent Trust, £4681. It will be seen that there is a considerable increase in outdoor relief all along the line. The Wellington Benevolent Trust has increased its outdoor relief during the past year by £1305. Dr. D. McGregor, the Inspector-General of Hospitals, remarks: "It is a fact accepted by all careful students of social science that pauperism grows by giving too freely and badly administered outdoor relief merely intensifies the evil its administrators desire to mitigate." The Benevolent Institution at Caversham, the report says, is still over-full and under-staffed. Many years ago, before the new buildings began to be erected, the Inspector-General did his best to impress upon the trustees how unwise it was to erect new buildings on so small a piece of ground, amounting to not more than eight and a half acres. A piece of good land must be obtained somewhere in the Taieri and a building must be erected to be worked in connexion with the central institution. The item "wines and spirits" for Auckland Hospital amounted to £314 for the year, for Christchurch Hospital to £61, for Dunedin Hospital to £186, and for Wellington Hospital to £173. "The Nurses' Registration Act," the Inspector General observes, "has now been in force for a year and a half and is working smoothly. There are 320 names of nurses on the register. There were 29 nurses entered as candidates for the examination held in May last and 27 of these passed and are duly registered. Such an Act is necessary owing to the advance of scientific surgery and the progress of medical knowledge. It protects medical men and also the public from the increased number of unqualified women who pose as nurses and who too often prove a real danger in critical illness and in operations. It is interesting to note that within the last few months five of the American States—North Carolina, New York, Illinois, Virginia, and New Jersey—have followed the lead of this colony and passed Acts for the State registration of duly qualified nurses. The Nurses' Registration Act of New Zealand uses no compulsion except that of enlightened self-interest on the part of the nurses themselves, and it is daily becoming more apparent that by the silent pressure of this law the nursing profession of New Zealand will be effectively organised. The whole working of it has been entrusted to Mrs. Grace Neill and the tact and skill by which she has carried on all the arrangements, often complicated and difficult as regards the examinations, have earned my highest appreciation and gratitude. These biennial examinations have been moulded on the system of the New Zealand University. The examiners have no knowledge of the name or hospital of the candidates whose papers they are examining and great care has been taken in electing as examiners medical men who have had especial knowledge of the training of nurses. The examination in the practical work of each nurse is undertaken by a medical man and a registered nurse conjointly."

Lunacy Report: Increase of Insane Patients; Overcrowding of the Asylums; a Plea for the Attendants.

The lunacy report, laid on the table of the House of Representatives, shows that on Dec. 31st last there were 2848 registered insane persons in the colony, being an increase of 75 over the previous year. The proportion of the total insane to the total population was, exclusive of Maoris, 3·50 per 1000 or 1 in 286; inclusive of Maoris, 3·35 per 1000, or 1 in 299. The admissions during the year for the first time totalled 440 and the re-admissions 104. The percentage of deaths on the average number resident during the year was 6·28, as compared with 6·41 for the previous year. The percentage of deaths on admissions was 32·17 and the percentage of recoveries on admissions 43·01, as compared with 41·17 for the previous year. The average cost per patient for the year was £29 6*s.* 10*d.*, as against £28 16*s.* 11½*d.* for 1901, the increase being mainly due to the rise in the price of meat and flour. Wellington (£34 11*s.* 7½*d.* per patient) was the most costly asylum and Auckland (£24 7*s.* 0½*d.*) was the cheapest. Dr. McGregor reports that at Auckland there are 551 patients but only floor space for 493. The asylum is therefore overcrowded to the extent of 58 patients. The following figures show the extent of overcrowding at our asylums: Auckland, 58; Christchurch, 96; Seacliffe, 61; Nelson, 4; Porirua, 10; and Wellington, 47; total 276. There is room at Hokitika for 24. The Inspector-General observes that one thing in which we are helplessly astern of the whole British empire is the overcrowding of our asylums, a fact which goes far to nullify, so far as the rational treatment of patients is concerned, all our other advantages. He has some hopes, however, that the Government may soon take steps to provide intermediate accommodation for uncertifiable cases near Christchurch. In view of the universal change in the condition of the labour market Dr. McGregor thinks it necessary to raise the wages of the asylum attendants. Artisan and charge attendants ought to receive an increase of 25 per cent. and the ordinary attendants an increase of 20 per cent. It will be necessary also, in his opinion, to increase the salaries of assistant medical officers to £300 instead of £250, rising to £350 after five years' service, for it has been found impossible to get suitable applicants at the lower figure. It is again recommended that Parliament should agree to give medical superintendents 12 months' holiday on full pay every sixth year. The great strain which they have had to bear has all but broken down every one of them. From the statistics comparatively little is to be learned. Medical experts will probably agree that they are very wide of what such statistics should be. To classify a man as a "labourer" or a "farmer" in such a colony as ours or to give "domestic duties" as an index to a woman's past history is rather farcical. Practically nothing is being done in this direction, which is admittedly of supreme importance in the study of the question. The asylum medical officers, overworked and under-staffed, cannot possibly be expected to give the time that would be required to make even an intelligible statistical return. Fuller returns on this question would meet with grateful recognition from all students and experts.

Wanganui, Oct. 12th.

Obituary.

SIR ROBERT MARTIN CRAVEN, KT., F.R.C.S. ENG. AND EDIN., J.P.

ON Nov. 15th there passed away at the ripe age of 80 years Robert Martin Craven, for many years a well-known practitioner of Hull. He came of a medical family, for his father, Robert Craven, and his grandfather, Robert Martin Craven, were both surgeons practising in Hull. Robert Martin Craven the second, the subject of this memoir, was born in Hull in 1824 and was educated at Kingston College, Hull. He commenced his professional studies at the Hull General Infirmary and continued them at St. Bartholomew's Hospital, London, and at the hospitals of Paris. In 1846 he was admitted a Member of the Royal College of Surgeons of England and in 1847 he became a Licentiate of the Society of Apothecaries, London. In 1849 he commenced the practice of his profession in partnership with his father and in 1852 was elected an honorary surgeon to the Hull General Infirmary, a post which he resigned in 1892, being then made consulting surgeon. In 1886 a ward had been named the Craven Ward in memory of services rendered by three generations of Cravens. From 1850 to its dissolution in 1870 he was lecturer in anatomy at, and secretary to, the Hull Medical School. In 1879 he was elected a Fellow of the

Royal College of Surgeons of Edinburgh, receiving the same honour from the Royal College of Surgeons of England in 1889. He was twice chosen President of the local branch of the British Medical Association and was also from time to time President of the various literary and scientific societies of Hull. In 1877 he was made a justice of the peace and in 1878 he was chosen as sheriff of Hull, being as a final honour knighted in 1896. With regard to matters outside a purely professional sphere Sir Robert Martin Craven was a Conservative in politics and a Churchman. From 1885, the year of its foundation, he was President of the Central Hull Conservative Council—a post which he held until his death. He was twice married, his second wife, a daughter of Robert Welsh, W.S., of Edinburgh, being a descendant of John Knox and a cousin of Jane Welsh Carlyle. Throughout his long life Craven was an earnest worker and was always held in great esteem even by those who differed from him. More especially was he honoured by his professional brethren, not only on account of the good work which he did, but also for the standard of strict professional integrity which he always held aloft. His body was buried in the General Cemetery, Hull, on Nov. 18th, the previous portion of the burial service having been said at St. Mary's Church.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Cézilly who founded the well-known French medical journal *Le Concours Médical*.—Dr. Vladimir Brodowski, formerly professor of anatomy in Warsaw.—Dr. Adam Gliszczynski, formerly professor of midwifery and gynæcology in Warsaw.—Dr. Barsis, formerly editor of the *Wiener Medicinische Presse*, at the age of 39 years, at Meran.—Dr. Otto Nasse, who was professor of pharmacology and physiological chemistry in the University of Rostock from 1880 to 1899. He wrote the portions of "Hermann's Physiology" dealing with chemistry and the metabolic changes in muscular tissue.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

TUESDAY, NOV. 24TH.

THE seventy-eighth session of the General Council of Medical Education and Registration was opened to-day in the offices, Oxford-street, London. The PRESIDENT, Sir WILLIAM TURNER, K.C.B., Principal of the University of Edinburgh, occupied the chair.

Introduction of Sir John William Moore, M.D.

Dr. LITTLE formally introduced to the President and to the Council Sir John William Moore who has been appointed to succeed Dr. Lombe Atthill in the representation of the Royal College of Physicians of Ireland.

President's Address.

The PRESIDENT then delivered his inaugural address.

[After referring sympathetically to the resignation of Dr. Lombe Atthill and to the death of Sir George Duffey he said:—]

I may remind the Council that the inspection of the final examinations of the Scottish universities, which in the customary course should have been undertaken during this year, was owing to Sir George Duffey's illness deferred until 1904. In order that this duty may be discharged at the respective periods of examination it will be necessary either to appoint an inspector before the Council separates or perhaps perferably to authorise the Executive Committee to do so at its meeting in February. In connexion with the series of inspections I should state that the report on the inspection of the final examination of the Apothecaries' Society of London held in January last, at which Dr. Bruce was associated as visitor with our inspector, has been completed by Dr. Bruce with the aid of the memoranda prepared by Sir George Duffey. I have also to intimate that Dr. W. P. Herringham, who has acted for three years as the Council's inspector specially appointed to report on the examinations held at the Apothecaries' Hall, Dublin, has resigned his office. The Council will no doubt wish to recognise that his duties have been discharged with judgment and discretion. In view of the character of recent reports and the improvements which have been effected in the examinations the Council may perhaps think it no longer to be required that each examination should continue to be inspected and as the Council has power under the Act to prescribe the duties to be discharged by the assistant examiners appointed by the Council that a visitation and report from time to time by a special inspector may be all that is now necessary.

I have received a communication from the secretary of the Dublin Apothecaries' Hall in which the request is made that it should be relieved of the burden entailed by the travelling expenses of the assistant examiners in surgery appointed by the Council. As the presence of these examiners is necessary in order to enable the Dublin Apothecaries' Hall to conduct a qualifying examination for the diploma, and as the statute requires that such remuneration as the Council determines is to be paid by the medical corporation at whose examinations they take part, it seems clear that the Apothecaries' Hall should continue to bear the charges attendant on the presence of the examiners. Since my address was in print the Society of Apothecaries of Dublin has intimated its intention to resume on Jan. 1st, 1904, its preliminary examination in arts

[The President then pointed out that under the division of Victoria University the new University of Liverpool has now become entitled to hold qualifying medical examinations and to be represented on the General Medical Council. He understood that the appointment of Mr. Young, the present representative of Victoria University, remained unaffected and that he holds his seat on the Council until resignation or the expiration of the term for which he was originally appointed. The President continued:—]

No charter has yet been granted to establish a university in Yorkshire, although it is not unlikely that one may be granted in the immediate future.

At the July meeting of the Council I was requested to forward to the Royal Colleges of Physicians and Surgeons in London the reports of the Council's Education and Examination Committees, together with the Council's resolutions thereupon, to call the attention of the Colleges to the unsatisfactory condition of the courses of study and examination in chemistry, physics, and biology disclosed in these reports, and to urge that in the interests of medical education immediate steps should be taken to remedy the defects referred to. I was further authorised to appoint a committee to join with me in conferring with representatives of the Royal Colleges should it appear that a conference on the questions raised was desired. Accordingly I communicated with the two Colleges and was informed in due time that the Council of the Royal College of Surgeons had had under consideration my letter and the accompanying documents and had appointed delegates to confer with delegates of the Royal College of Physicians respecting the proposed conference. In the early part of this month a special committee consisting of the two groups of delegates met and considered the questions raised in my letter. This committee has now reported to the Colleges and it recommends that the General Medical Council be thanked for the expression of its opinions respecting the courses of study and the examinations in chemistry, physics, and biology, and that these opinions should receive the respectful attention of the two Royal Colleges. Further, the committee recommends that the Royal Colleges should express regret that they are unable to accept the invitation of the President of the General Medical Council to appoint representatives to meet the committee of the Council in regard to the question of medical education and examination in chemistry, physics, and biology, which has been raised in the reports of the Council's Education and Examination Committees. An official communication has now been received from each of the two Colleges reporting the adoption of the recommendations of the committee of delegates as the reply of the Colleges to my communication.

In my address from the chair in May last I referred to the question of reciprocity between the United Kingdom and Canada in regard to the registration of their respective medical qualifications and I made a suggestion which in the event of one of the provincial legislatures declining to avail itself of the Canadian Medical Act, 1902, would, if adopted, enable the other provinces to establish reciprocal relations with the United Kingdom under Part II. of the Medical Act, 1886. The Provincial Medical Board of Nova Scotia has sent me a resolution passed at the annual meeting in which

it endorsed that suggestion. As requested by the Council I communicated with both the Privy Council and the Colonial Office to ascertain if the suggestion was likely to be favourably regarded by the Government of the Dominion of Canada or by the medical authorities who have supported the Canada Medical Act, 1902. In reply I have been informed that the Canada Medical Act was introduced and carried through the Dominion Parliament by a private member, no legislation having been initiated by the Government of Canada, and that the Ministers are not aware if an amendment of the Act is in contemplation during the present session.

In accordance with the request of the Council I asked the attention of the Lord President of the Privy Council to a Pharmacy Bill then before Parliament, in which the rights of the medical profession as safeguarded by existing Pharmacy Acts appeared to be encroached upon. In reply I am assured that the Council of the Pharmaceutical Society has no intention of interfering with medical practice and that it has prepared a clause for insertion in a future Bill to insure that it shall not interfere with or abrogate any of the rights reserved in the Pharmacy Acts, 1868 and 1869. A communication to the same effect has been received directly from the secretary to the Pharmaceutical Society.

A letter has been addressed to us by the Consultative Committee of the Board of Education with regard to the institution of a general system of leaving examinations for secondary schools in England, which could be accepted in lieu of the preliminary examinations now required for admission to the various professional bodies. The Council is invited to send one or two representatives to a conference with the Consultative Committee to be held on Friday, Dec. 4th. Those of us who live in Scotland are familiar with the beneficial effect which the introduction some years ago of a national system of leaving examinations and certificates has had in raising the standard of education in the secondary schools in that division of the United Kingdom. It is very satisfactory to hear that it is proposed to introduce in England a similar system and it must be gratifying to this Council to be asked to take a part in so important a conference. It is to be hoped that the conclusions arrived at and the subsequent action of the Board of Education thereupon will result in the establishment in England of a system of leaving examinations which, so far as this Council is concerned, will simplify the much discussed question of the preliminary education of students of medicine. For in questions which do not directly fall within its own competency the Council cannot stand outside a well considered national scheme of education and examination intended to qualify for admission to the various professions.

[The President then referred to the reports of the Examination Committee and Education Committee to be placed before the Council and continued :—]

The Council having adopted at its meeting in May a memorandum which I then submitted to it on its financial position and on the inadequacy of its income, I have communicated the memorandum officially to the Lord President of the Privy Council and have requested that consideration would be given to the subject, with a view to the financial difficulties being removed, either in the manner suggested in the memorandum or in some other way. I have reason to know that the question is now being carefully considered.

A communication has been sent by the Home Secretary inclosing a copy of a letter which he had received from the coroner of the Pickering Division of the North Riding of York-shire with regard to inquests in cases where the deceased has been attended by a person who is not a registered medical practitioner. The attention of the Council has on various occasions been called by coroners and other official persons to this matter and it has been made the subject of repeated representations by us to the various Government authorities, but up to this time no remedial legislation has been provided. Subject to the approval of the Council I propose to make a further representation to the Local Government Board on this question. A number of registered medical practitioners in Glasgow have presented to the Lord President of the Privy Council a petition respecting the action of the Pharmaceutical Society of Great Britain and of the General Medical Council with reference to the sale of scheduled poisons by unqualified assistants. This petition has been transmitted by the Lord President for our information.

[The President concluded by expressing a hope that the Council would be able to complete its work at the beginning of next week.]

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the Council thanked Sir William Turner for his address.

Service Examinations.

Mr. ALLEN, the Chief Registrar, presented to the Council a series of tables showing the results of certain examinations for commissions on the medical staffs of the Royal Navy, His Majesty's Army, and the Indian Medical Service.

The tables were received and the thanks of the Council were accorded to the Government officials who supplied the information.

Mr. G. BROWN intimated that he would place upon the business paper a notice with regard to the number of rejections disclosed in the tables in order that the subject might be discussed at a subsequent stage by the Council.

In Camerâ.

The Council sat for a while in private but no announcement was made as to the subjects under discussion or as to the results.

Leaving Examinations for Secondary Schools.

The following communication was received and entered on the minutes :—

Board of Education, South Kensington,
London, S.W., Oct. 27th, 1903.

CONSULTATIVE COMMITTEE.

SIR,—I am directed to invite the General Council of Medical Education and Registration to send one or two representatives to a conference with the Consultative Committee on Friday, Dec. 4th. The conference will be held at the offices of the Board of Education, South Kensington, at 11.15 A.M., and representatives of other professional bodies have also been invited to attend.

The following is the question on which the committee would wish to confer :—

Whether it is desirable and feasible to institute for secondary schools in this country (excluding for the present Wales and Monmouth) a general system of leaving examinations of such a nature as to be acceptable in lieu of the preliminary examinations now required for admission to the various professional bodies.

The committee have themselves carefully considered the question; they have already conferred with representatives of the universities and of the teaching profession on the subject and have gone so far as to draw up a preliminary plan indicating the principles upon which such a system might be framed to suit existing conditions. It is this plan that they would propose to explain and discuss at the conference. They would prefer not to submit the plan in its still tentative form to the Council at present. After they have had an opportunity of further hearing the views of those who are interested they hope then to be in a condition to prepare a more definite project, but to present a scheme which at the present stage is necessarily immature would be liable to lead to misapprehension. The committee would, however, propose, when the names of representatives who will attend are communicated to them, to forward to each one informally a copy of their preliminary plan as a general outline of their ideas and to serve as a basis for discussion.

As the result of recent discussions some modifications are contemplated in the committee's original scheme. They will not, therefore, be in a position to send copies to representatives until it has undergone a revision at their next meeting on Oct. 29th.

They think, however, that it will be convenient to the Council to receive an early invitation to send representatives to the proposed conference and will forward the paper in question to representatives at as early a date as possible after the day named.

The Board of Education in consenting to the arrangements for the conference have particularly stipulated that their attitude towards it should be clearly explained at the time of sending out the invitations.

They will be ready carefully to consider any scheme put before them, with any accompanying observations, by the Consultative Committee, but they cannot engage themselves to take action if action is suggested and they must not be regarded as committed to anything in the nature of an endorsement of the proposals of the committee. In fact, they must view the question not only on its merits but in connexion with their general educational policy. They are fully sensible of the injurious effect upon secondary education of the present multiplicity of examinations and they have little doubt that a discussion between the consultative committee and the various bodies concerned will lead to useful results.

I am, Sir, your obedient servant,
A. R. GUEST,
Secretary to the Consultative Committee.

The Registrar,
General Council of Medical Education and Registration.

Dr. PAYNE moved—

That in response to the invitation of the Consultative Committee the Council do appoint two representatives—Sir John Batty Tuke, chairman of the Education Committee, and Dr. MacAlister, chairman of the Business Committee—to attend the conference proposed in the foregoing communication.

He mentioned that Dr. Windle was a member of the Consultative Committee.

The motion was seconded by Dr. NORMAN MOORE and was agreed to.

The Council adjourned.

WEDNESDAY, NOV. 25TH.

The Council resumed to-day, Sir WILLIAM TURNER, the President, being in the chair.

The Case of Dr. William George Niall.

Consideration was resumed of the case, partly heard on May 27th and 28th last, of Dr. William George Niall, registered as of Kinkora, Dabdune-crescent, Guildford, M.D., Mast. Surg. 1886, R. Univ. Irel., who had been summoned to answer a charge formulated by the Council's solicitor (Mr. Winterbotham).

The PRESIDENT ordered parties to be called and said: I would remind the Council that this case was before us on the 27th of May last, when it was decided that it should be heard *in camerâ*. The Council will proceed with it *in camerâ*, and strangers, therefore, will withdraw.

The rest of the sitting was occupied with the case. On the re-admission of parties and the public, just on the usual hour of rising for the day,

The PRESIDENT, addressing Dr. Niall, said: The Council has deliberated on your case and I have to inform you that the facts alleged against you in the notice of inquiry have not been proved to the satisfaction of the Council. That completes the case.

The Council adjourned.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having passed the necessary examination have been admitted as Members:—

George Basil Doyne Adams, B.A. Oxon., Oxford University and St. Bartholomew's Hospital; Robert Grenville Anderson, Guy's Hospital; Edward Guy Anthonisz, St. Mary's Hospital; John Gerald Atkinson, St. Bartholomew's Hospital; Seymour Gilbert Barling, Birmingham University; Charlie Barlow, L.R.C.P. Lond., and Thomas Edward Blunt, London Hospital; Gerald Eade Bellamy and Bertram Raleigh Bickford, Charing Cross Hospital; Percy Claude Vincent Bent and Sidney Clement Bowle, L.D.S. Eng., Guy's Hospital; Hugh Wood Bethell, B.A. Camb., Cambridge University and Guy's Hospital; Amelius Cyril Birt, St. Thomas's Hospital; Henry Jameson Cardew, B.A. Camb., Cambridge University and St. George's Hospital; Ferguson Fitton Carr-Harris, M.D. Canada, Kingston Queen's University, Canada, and University College Hospital; Cyril Thomas Cheatle, King's College Hospital; David Brynmor Chiles Evans, University College, Cardiff, and University College Hospital; Harold Clapham, St. Mary's Hospital; Frederick Cock, Charing Cross Hospital; James Douglas Cooke, Melbourne University and London Hospital; William Lawrence Cripps, Cambridge University and St. Bartholomew's Hospital; William Allen Cumming, M.D., C.M. McGill, McGill University, Montreal, and St. Mary's Hospital; Edward David Davies, University College, Cardiff, and Charing Cross Hospital; Mervyn Eager, King's College Hospital; Leonard Erasmus Ellis, L.S.A. Lond., St. George's Hospital; Herman Falk, B.A. Camb., Cambridge University and St. Thomas's Hospital; George Ernest Oswald Fenwick, University of New Zealand and University College Hospital; Arthur Edwin Fiddian, University College, Cardiff, and St. Mary's Hospital; Walter Tayler Finlayson, St. Mary's Hospital; Henry Richmond Fisher, B.A. Camb., Cambridge University and London Hospital; Leonard William Forsyth, M.A. Camb., L.D.S. Eng., Cambridge University and Middlesex Hospital; Frank Melwin Gardner-Medwin, B.A. Camb., St. Bartholomew's Hospital and Cambridge University; Wilfrid Garton, St. George's and Westminster Hospitals; Owen Binns Gauntlett and Harry Morgan Gilmour, St. Thomas's Hospital; Francis Willoughby Goyder, B.A., B.C. Camb., Cambridge University and St. Mary's Hospital; William Prince Grant, Owens College and Royal Infirmary, Manchester; John Nisbet Gunn, M.B. Toronto, Toronto University; Arthur Hallowes, St. Bartholomew's Hospital; William Thompson Hamilton, M.B. Toronto, University College, Toronto; Sydney Lawrence Harke, B.A. Camb., Cambridge University and St. Bartholomew's Hospital; Bernard Higham, St. Thomas's Hospital; Robert B. Dennis Hirst, Birmingham University; Geoffrey Gratrix Hirst, B.A. Camb., Cambridge University and Middlesex Hospital; Basil Hood, Charing Cross Hospital; William Stanley Hughes, St. Mary's Hospital; John James, King's College Hospital; William Johnson and Herbert Stanley Jones, Guy's Hospital; James Douglas Judson, Owens College and Royal Infirmary, Manchester; John Newport Kilner, St. Mary's Hospital; Stephen March Lawrence, St. Bartholomew's Hospital; William Collins Lewis, Guy's Hospital; Travis Clay Lucas, B.A. Camb., Cambridge University and Guy's Hospital; Evelyn John Hansler Luxmoor, St. Mary's Hospital; William Cameron Macauley, B.A. Lond., Middlesex Hospital; Charles Markus, M.D. Germany, Freiburg and University College Hospital; James Ernest Martin and Roy Charles Merryweather, University College Hospital; Arthur Martineau, B.A. Camb., Cambridge University and London Hospital; Cecil Francis Nicholas, St. Bartholomew's Hospital; William Wilson Nock, Birmingham University; William Boyle Norcott, Queen's College, Cork; Robert George Nothwanger, M.A. Camb., Cambridge and St. George's Hospital; Frederick Pitcairn Nunneley, B.A. Oxon., Oxford and St. George's Hospital; Basil Hewitt Pain, B.A. Camb., Cambridge University and St. Bartholomew's Hospital; Russell Edwards Palmer, George Ernest Peachell, and Ernest Aubrey Price, St. Mary's Hospital; Leonard Gregory Parsons, Birmingham University; Percy Clift Peace, University College and General Infirmary, Sheffield; Charles Tertius MacLean Plowright, B.A. Camb., and Charles Alfred Whiting Pope, B.A. Camb., Cambridge University and St. Bartholomew's Hospital; Ralph Raby, St. Thomas's Hospital; Thomas Edward Regan, Owens College and Royal Infirmary, Manchester; Donald Murray Ross, Durham University and St. Thomas's Hospital; John Bart Rous, St. Mary's Hospital; John Latham Rushton, King's College Hospital; Henry Thomas Samuel, University College, Cardiff, and St. Bartholomew's Hospital; Harold Harris Elborough Scatliff, M.A. Oxon., Oxford University and St. George's Hospital; Walter Henderson Scott, Alec John Lincoln Speechly, and Frederic Ernest Tayler, St. Bartholomew's Hospital; Harry Christopher Sidgwick, B.A. Camb., Cambridge University and St. Bartholomew's Hospital; Charles Joseph Singer, B.A. Oxon., St. Mary's Hospital; William Gordon Taylor, M.A. Aberd., Middlesex Hospital; John Haydn Timothy, University College, Cardiff, and University College Hospital; James Evan Turle, University College Hospital; John Courtnay Folliott Dudley Vaughan, St. Thomas's Hospital; Frederick Herbert Wallace, Alexander Moxon Webber, and Richard Willan, Guy's Hospital; George Delaval Walsh, London Hospital; Solomon James Weinberg, Owens College and Royal Infirmary, Manchester; Hugh Wheelwright, St. Thomas's Hospital; Edward How White, B.A. Oxon., Oxford University and St. Bartholomew's Hospital; Robert Glover Wills, B.A. Camb., Cambridge University and University College and Royal Infirmary, Liverpool; Oswald Charles Withrow, M.B. Toronto, Toronto University and Middlesex Hospital; Alexander Frederick Richmond Wollaston, B.A. Camb., Cambridge University and London Hospital; and Harold William Wilson, Lauriston Leonard Winterbotham, and Walter Perceval Yetts, St. Bartholomew's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held in November the following candidates passed in the subjects indicated:—

Surgery.—G. Nunn (Sections I. and II.), Guy's Hospital; P. J. Pagonis, Athens; P. A. Pettavel, Lausanne; C. H. Pring (Section II.), Westminster Hospital; and L. S. Shoosmith (Sections I. and II.), St. Mary's Hospital.

Medicine.—S. Bentley (Section II.), Sheffield; C. C. Bernard (Section I.), Royal Free Hospital; P. Elias (Section I. and II.), Amsterdam; F. Hansen (Section II.), Copenhagen; W. B. Harris (Sections I. and II.), St. Mary's Hospital; P. S. Klots, Leyden; W. S. Lewis (Section II.), Birmingham; and C. H. Pring (Section II.), Westminster Hospital.

Forensic Medicine.—C. C. Bernard, Royal Free Hospital; P. M. Boclet and G. C. M. Davies, Charing Cross Hospital; P. Elias, Amsterdam; J. H. Harrison, Sheffield; H. M. Jones, Royal Free Hospital; P. S. Klots, Leyden; and T. R. Waltenberg, Manchester.

Midwifery.—L. F. Cope, St. George's Hospital; G. C. M. Davies, Charing Cross Hospital; P. Elias, Amsterdam; A. T. Greenhill, St. Bartholomew's Hospital; R. J. S. Verity, Charing Cross Hospital; and A. Whitby, Dublin.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery: S. Bentley, F. M. Boclet, F. Hansen, W. B. Harris, P. S. Klots, P. J. Pagonis, P. A. Pettavel, C. H. Pring, and L. S. Shoosmith.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—FELLOWSHIP EXAMINATION.—The following candidates have passed the Primary part of the Fellowship examination:—

P. F. Foran, Dublin; Miss C. E. O'Meara, Dublin; H. J. Perry, Cork; and H. Stevenson, Belfast.

TRINITY COLLEGE, DUBLIN.—At the Previous Medical Examination at Michaelmas term the following gentlemen passed in the subjects indicated:—

Anatomy and Institutes of Medicine.—Alfred C. Elliott, Francis J. Usher, Daniel M. Corbett, Hercules J. Knox, Michael P. Leahy, and Ernest C. Phelan.

Physics and Chemistry.—Edmond H. Sheehan, Johann A. L. Hahn, Thomas P. Dowley, James G. M. Moloney, Frederick R. Sayers, William H. Sutcliffe, Gordon A. Jackson, John W. Lane, Charles H. O'Rorke, and Henry de C. Dillon.

Botany and Zoology.—Thomas H. Gibbon, Frederick C. Anderson, Horace F. Blood, Samuel F. A. Charles, Henry D. Woodroffe, and Thomas J. T. Wilmot.

BRADFORD SANATORIUM FOR PAUPER CONSUMPTIVES.—A sanatorium for the treatment of consumptives in the Bradford Union was opened at Eastby, near Skipton, on Nov. 3rd by Sir Francis S. Powell, Bart., M.P.; it was commenced in October, 1902. The area of the site is six and a half acres. So far only one pavilion, a wooden structure 165 yards in length, has been provided. The patients' rooms, which number ten, are all on the ground floor. The nurses' quarters are upstairs and the bathrooms, lavatories, and other conveniences are at the rear of the pavilion. All corners are rounded to prevent the accumulation of dust and the staircase is open both at the back and the sides. The administrative block is of stone and is a one-storeyed building. Water has been secured from a bore-hole 200 feet deep from which it is pumped by means of a small windmill. An electric plant is provided and the buildings are heated by hot water. The adjoining woods have been placed at the disposal of the patients by the Duke of Devonshire. Mr. F. H. Beatham,

chairman of the Bradford board of guardians, said that the estimated cost of the scheme was £10,000. The scheme provided for 52 patients. At the present time they were ready to treat 21 but it was anticipated that a second pavilion would be erected shortly. The cost would probably work out at £200 per bed as against £600 in other sanatoriums in various parts of the country. There was no reason why the patients should be confined solely to the pauper class and he hoped other sufferers would eventually find succour there.

PRESENTATION TO A MEDICAL MAN.—Mr. R. A. D. Daniel, M.D. Durh., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., who until recently had an extensive practice in the Hammersmith and Chiswick districts, was on Nov. 23rd the recipient of a testimonial from a number of his old patients in the shape of a silver Georgian tea and coffee service, a hot-water jug to match, and a cheque for 35 guineas to purchase any personal present he might desire.

UNIVERSITY OF OXFORD.—In a Convocation held on Nov. 17th the names of the following persons who had been duly nominated to serve as examiners in the examinations for the degree of B.M. were submitted to the house and approved (*nemine contradicente*):—First examination: Francis Gotch, M.A., D.Sc., F.R.S., Fellow of Magdalen College, Waynefiete professor of physiology (in human physiology); second examination: Gustave I. Schorstein, M.A., B.M., Christ Church, F.R.C.P. (in medicine). The following are the dates announced for the examinations for the scholarships in natural science: Dec. 8th, Balliol College, Christ Church, and Trinity College; Jan. 12th, 1904, Jesus College; Jan. 19th, Lincoln College; March 15th Keble College; March 22nd, Magdalen College; and April 19th, Merton College, New College, and Corpus Christi College.

ST. MARY'S HOSPITAL.—The retirement of Sir Anderson Critchett and Mr. Malcolm A. Morris from the hospital staff of St. Mary's Hospital after 20 years of service was signalised on Nov. 20th by the presentation of two silver candelabra to Sir Anderson Critchett and 145 volumes of the *Annual Register* to Mr. Morris. The ceremony took place in the board room of the hospital and Sir William H. Broadbent, Bart., K.C.V.O., was the spokesman for the subscribers to the testimonial. The friends of the two retiring members of the staff assembled in full force and loudly applauded the eulogistic sentiments uttered by Sir William Broadbent. He said that they had gathered there to do honour to Sir Anderson Critchett and Mr. Morris and to offer them on the part of old and present St. Mary's men some small testimony of the esteem and regard in which they were held. Continuing, Sir William Broadbent said that the occasion marked the severance of the active connexion of the two retiring gentlemen with the hospital and that entailed a great loss to them and to the institution. After discussing the merits and demerits of the regulation that obliged members of the staff to retire after 20 years' active service, Sir William Broadbent proceeded to deliver a panegyric on the services rendered to the hospital by Sir Anderson Critchett and an eloquent appreciation of Sir Anderson Critchett's work in ophthalmology was greeted with hearty applause. In regard to Mr. Morris Sir William Broadbent particularly emphasised his enthusiasm and observed that all would agree that Mr. Morris's restless energy was his great characteristic. He praised the book on "Skin Diseases" that Mr. Morris had written and detailed the benefits which the public had derived from the influence of the National Association for the Prevention of Consumption and other Forms of Tuberculosis which Mr. Morris was so largely instrumental in founding. Sir Anderson Critchett, in acknowledging the testimonial, said that though he could not claim to be the actual father of the ophthalmological department at St. Mary's Hospital, because when he first began work there it existed as a weak bantling, struggling for existence, nevertheless he could at any rate claim that he was its foster father. He traced the growth of his department from an average attendance of ten or 12 to the large number of patients attending at the present time and described how he had had a large share in the ophthalmological education of some 40 house surgeons. Mr. Morris contented himself with a short but effective farewell speech. He spoke in a feeling manner of how hard it was after 20 years' friendship suddenly to part with valued friends and colleagues. He looked on the occasion as a tribute of sympathy offered to him in alleviation of the unpleasant ordeal of retiring from active service on the staff while still in full possession of his faculties. Mr. Edmund Owen, in a neat and witty speech of a few minutes' duration, in which he referred to open graves, lamentations, rue, and rosemary, proposed a vote of thanks to Sir William Broadbent for presiding and shortly afterwards the meeting came to an end.

THE NATIONAL DENTAL HOSPITAL.—The £40 entrance exhibition for this session has been won by Mr. G. W. Geekie, B.A. Oxon., and the one for £20 has been divided between Mr. Walter Rose of Liverpool and Mr. C. H. Taylor of Hornsey, N.

LITERARY INTELLIGENCE.—Owing to the greater portion of the 1904 edition of *Who's Who* having been destroyed by fire at the binders, subscribers may in some instances experience delay in getting their copies. The reprinting is being rapidly pushed forward.

ROYAL ALBERT HOSPITAL, DEVONPORT.—The working men of the Keyham and Devonport dockyard have handed to the treasurer of the Royal Albert Hospital, Devonport, the sum of £340 which has been collected by them during the past 12 months for the funds of that institution.

ATTEMPTED MURDER OF A MEDICAL MAN.—Mr. George Whittenbury White, junior resident medical officer at the Union Infirmary, Fir Vale, Sheffield, has been the victim of an attack by a ruffian named Edward North. The man complained of pains in the back and while Mr. White was examining him drew from his sleeve an open clasp knife and lunged with it towards Mr. White's head. Mr. White dodged and escaped the first blow but the second blow caught him in the ear. North was at once felled and secured by the attendants. Revenge appears to have been the man's motive for the attack, as he is reported to have said that he hated all doctors for what he went through at Wakefield Gaol, when he got the "cat" and the medical officer stood by and allowed it. He had only recently been released from that gaol where he had served a sentence for burglary. Mr. J. H. Bellamy, the senior resident medical officer, describes Mr. White's injury as a punctured wound about an inch long and three quarters of an inch deep extending backwards from the lower border of the left external auditory meatus towards the mastoid process. It required suturing and is now healing well and neither permanent ill-effects nor prolonged absence from work are anticipated. Mr. White is to be sincerely congratulated upon the fortunate issue of a very determined attempt at murder.

DINNER TO PROFESSOR HOWARD MARSH.—On Nov. 17th a complimentary dinner was given at the University Arms Hotel, Cambridge, to Mr. Howard Marsh on his appointment as professor of surgery at the University of Cambridge by old students of St. Bartholomew's Hospital residing in Cambridge and the vicinity. Dr. P. W. Latham of Cambridge occupied the chair and those present included Sir William S. Church, Bart., Mr. A. Willett, Dr. A. Hill (Master of Downing College), Dr. D. MacAlister, Dr. L. Humphry, Dr. E. Lloyd Jones, Dr. H. K. Anderson of Great Shelford, Mr. T. W. Burn, Dr. W. Malden, Mr. J. Giles of Caxton, Mr. E. F. Bindloss of Swavesey, Dr. R. W. Michell, Dr. H. Skelding of Bedford, and Mr. F. E. Apthorpe Webb. After the usual Royal toasts the Chairman in well-chosen words proposed the health of "Our Guest." Alluding to the brilliant career of Professor Marsh he said that the appointment was an honour no less to the hospital than to Professor Marsh. He thought it very gratifying that among the colleagues and pupils of Professor Marsh who had met to do him honour they had the presence of the Presidents of the Royal College of Physicians of London and of the Royal Medical and Chirurgical Society, together with the Master of Downing College. Professor Marsh, on rising to reply, was accorded a very hearty reception. He expressed his gratitude to those present for the compliment they had paid him and said that he would endeavour to keep up the traditions both of his school and of the University. Dr. Hill then proposed "Success to Our School." It was gratifying to all that the connexion between St. Bartholomew's Hospital and the University of Cambridge still continued. Sir William Church, in responding, said that it afforded him great pleasure to be present to show

the regard and esteem in which Professor Marsh was held by all St. Bartholomew's men. Mr. Willett also replied and alluded to the changes which had taken place with regard to the work of the hospital during Professor Marsh's connexion with the school. Mr. Bindloss proposed "The Chairman." Dr. Latham, in reply, reminded those present that when the late Sir G. Humphry was a candidate for the post of house surgeon to Addenbrooke's Hospital two other St. Bartholomew's men also applied—viz., Luther Holden and Holmes Coote, both of whom afterwards became surgeons to the hospital. A vote of thanks to the honorary secretary terminated a successful and enjoyable evening.

BOOKS, ETC., RECEIVED.

ADAMS BROS., 27, Old Jewry, E.C.

The Diseases of the Mouth and Teeth. By Lloyd T. Lavan, L.D.S., R.C.S., late Assistant House Surgeon, National Dental Hospital. Part I. The Diseases of the Antrum (Maxillary Sinus). Price not stated.

BAILLIÈRE, TINDALL, AND COX, 8, Henrietta-street, Covent-garden, W.C.

Aids to the Mathematics of Hygiene. By R. Bruce Ferguson, M.A., M.D., B.C.Cantab., M.R.C.S., L.R.C.P. Second edition. Price, cloth, 2s. 6d.; paper, 2s.

Manual of the Diseases of the Eye. By Charles H. May, M.D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York, 1890-1903. Third edition, revised. Price 8s. 6d. net.

BALE, JOHN, SONS, AND DANIELSSON, LIMITED, 83-89, Great Titchfield-street, W.

The Elements of Kellgren's Manual Treatment. By Edgar F. Cyriax, M.D. Edin., 1901; Gymnastic Director, Stockholm, 1899. Price not stated.

BELL, GEORGE, AND SONS, London.

Gloria (45 octavo pages of poetry). By the Hon. Stephen Coleridge. Price not stated.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

ADAMSON, H. G., M.D. Lond., M.R.C.P., has been appointed Physician to the Skin Department, Paddington-green Children's Hospital.

BALLACHEY, H. H., L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Certifying Surgeon under the Factory Act for the Heckington District of the county of Lincoln.

GAULT, DAVID, M.D., F.R.C.S., has been appointed Medical Superintendent to the Orokonui Home for Inebriates, Waitati, Otago, New Zealand.

JENKINS, A. W., M.B. Lond., has been appointed Certifying Surgeon under the Factory Act for the Hinckley District of the county of Leicester.

JOYNES, FRANCIS JAMES, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health of Dursley (Gloucestershire).

LINDSEY, ERIC C., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Scarborough Hospital and Dispensary.

ROY, J. ALLAN C., M.B., Ch.B. Victoria, has been appointed Junior House Surgeon to the Manchester Royal Eye Hospital.

RUBRA, H. H., M.D. Brux., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer to the Hornsey Division of the General Post Office.

SHANAHAN, T., L.R.C.S. Irel., has been appointed Certifying Surgeon under the Factory Act for the Kilmacthomas District of the county of Waterford.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ARMY MEDICAL SERVICE.—Examination of Candidates for not less than 30 Commissions in the Royal Army Medical Corps.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House Surgeon. Salary £75 per annum, with board and residence.

BOURNEMOUTH, ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House Surgeon. Salary £30 per annum, with board, lodging, and washing.

BRIDGWATER INFIRMARY.—House Surgeon. Salary £30 a year, with board and residence.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR HOSPITAL, Church-street, Brighton.—Non-resident House Surgeon for six months, renewable. Salary at rate of £75 per annum.

CARLISLE DISPENSARY.—Resident Surgeon, unmarried. Salary £150 per annum, with apartments.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn-road.—Non-resident Surgeon. Honorarium at rate of 40 guineas a year. Also Three Registrars (honorary).

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Registrar. Honorarium of £40 per annum.

DURHAM COUNTY HOSPITAL.—House Surgeon. Salary £120 per annum, with board and lodging.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Pathologist. Salary 100 guineas per annum.

GUILDFORD, ROYAL SURREY COUNTY HOSPITAL.—Assistant House Surgeon. Salary £75, with board, residence and laundry.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—House Physician, unmarried, for six months. Salary £20, with board and residence. Also Clinical Pathologist and Bacteriologist, non-resident. Honorarium 50 guineas per annum.

HOSPITAL FOR WOMEN, Soho-square, London, W.—House Physician for six months. Salary £50.

HUDDERSFIELD INFIRMARY.—Junior House Surgeon. Salary £40 per annum, with board, residence, and washing.

JERSEY GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer, unmarried. Salary £120 a year, with rooms, gas, and attendance.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Assistant Surgeon.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury.—Gynæcologist.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Bethnal Green, E.—Medical Officer for Electrical Department. Salary £50 per annum. Also Pathologist and Bacteriologist. Salary £50 per annum, with lunch.

NOTTINGHAM GENERAL HOSPITAL.—House Physician. Salary £100, rising to £120, with board, lodging, and washing.

NOTTINGHAM POOR LAW INFIRMARY.—Second Resident Medical Officer. Salary £120 per annum, with apartments, board, washing, and attendance.

OLDHAM INFIRMARY.—Senior House Surgeon. Salary £100 per annum, with board, residence, and washing.

ROYAL COLLEGE OF PHYSICIANS.—Milroy Lecturer for 1905.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge-road, S.E.—Surgeon to Out-patients.

SHILLELAGH UNION, Co. Wicklow.—Medical Officer. Salary £120 per annum, with fees.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon. Salary at rate of £50 per annum, with board and residence.

SOUTH SHIELDS UNION.—Assistant (Resident) Medical Officer. Salary £200 per annum, with board, residence, washing, and attendance.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Lecturer on Physiology. Salary £400 per annum.

ST. PETER'S HOSPITAL FOR STONE, &c., Henrietta-street, Covent-garden, W.C.—Junior House Surgeon for six months, renewable. Salary at rate of £50 a year, with board, lodging, and washing. Also Clinical Assistants for out-patients.

SWANSEA GENERAL AND EYE HOSPITAL.—House Surgeon for six months. Salary £75 per annum, with board, apartments, washing, and attendance. Also House Physician. Salary £75 per annum, with board, apartments, washing, and attendance.

TEIGNMOUTH HOSPITAL, South Devon.—House Surgeon. Salary £70 a year with board, lodging, and washing.

UNIVERSITY COLLEGE, LONDON (UNIVERSITY OF LONDON).—Chair of Hygiene and Public Health.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician, also House Surgeon, both for six months. Board and lodging.

WEST NORFOLK AND LYNN HOSPITAL.—House Surgeon, unmarried. Salary £.00 per annum, with board, residence, and washing.

WINCHESTER ROYAL HANTS COUNTY HOSPITAL.—House Surgeon. Salary £65 per annum, rising to £75, with board, residence, &c. House Physician, unmarried. Salary £85 per annum, rising to £75, with board, residence, &c.

THE Chief Inspector of Factories, Home Office, S.W., gives notice of vacancies as Certifying Surgeons under the Factory Act at Middleton in the county of Lancaster, and at Shaftesbury in the county of Dorset.

Births, Marriages, and Deaths.

BIRTHS.

BARR.—On Nov. 17th, at Wentworth, Rotherham, the wife of Horace Carlos Barr, L.R.C.P., M.R.C.S., of a son.

BOWEN DAVIES.—On Nov. 21st, at Pendinas, St. Asaph, N. Wales, the wife of W. L. Bowen Davies, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

HUDSON.—On Nov. 19th, at Vine House, Cobham, Surrey, the wife of Arthur B. Hudson, M.R.C.S., L.R.C.P. Lond., of a son.

TYSON.—On Nov. 18th, at Folkestone, the wife of W. J. Tyson, M.D., F.R.C.P., of a daughter.

MARRIAGES.

MATHEW—SAUNDERS.—On Oct. 29th, at St. James', Sea Point, by the Very Revd. the Dean of Cape Town, assisted by the Revd. J. Deacon, Mabel, younger daughter of John Saunders, Esq., of Sea Cliffe, Sea Point, to G. Porter Mathew, M.A., M.D. Cantab., of Port Elizabeth, Cape Colony.

TURNER MAHOMED.—On Oct. 23rd, at Cape Town, George Albert Turner, M.B., M.O.H. for Kimberley, to Nellie, eldest daughter of the late F. A. Mahomed, M.B., F.R.C.P., and of Mrs. Mahomed.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE OD CHEM. CO.

WE have upon previous occasions had to animadvert upon the business methods of this firm but portions of its latest "literature" which is now being distributed broadcast to the members of the medical profession exceed in filth anything to be found in the pages of Casanova or of other "curious" works. As usual the Od Chem. Co. is puffing its preparation sanmetto which we are quite willing to allow may be useful in certain cases. The company has apparently got some medical men to write articles about the treatment of sterility and on Normal Reciprocity and How it is Obtained. These articles are reprinted in the pamphlet before us not so much with the desire of instructing the medical profession as of calling attention to the virtues of sanmetto. We are not going to quote the passages to which we refer, suffice it to say that they repeat in the plainest and most bald language the advice which van Swieten gave decorously veiled in Latin to the childless Maria Theresa. The advice has, we believe, been found by competent medical authorities to be sound but our contention is that these matters should not be made an advertisement of, nor should they be distributed broadcast through the post. We can only adjure all medical men to abstain from all dealings with the Od Chem. Co. A trading concern which manages its business and tries to win approval for its wares by such infamous measures as we have referred to above should be boycotted and, moreover, we hope that it will not be very long before His Majesty's Postmaster-General will find some way of dealing with such filthy publications. Surely they should come under the heading of Section 1 of the paragraph "Articles not allowed to be sent by Post" as laid down in the regulations published in the Post Office Guide. Medical details which are in no way filthy when published as part of a scientific work become so at once when part and parcel of an advertisement.

A CHRISTIAN SCIENCE BURGLARY.

THE New York correspondent of the *Daily Telegraph* states that Mrs. Mary Baker Eddy's house has been ransacked by burglars and that many articles of value, including gifts offered to Mrs. Eddy by her followers, were stolen. It will be interesting to see whether or not Mrs. Eddy applies to the police or whether she will just think that she has not lost anything, for this, we imagine, is the orthodox Christian Science treatment of disease and evil.

THE VAGINAL DOUCHE.

To the Editors of THE LANCET.

SIRS,—From time to time various modifications and improvements of vaginal syringes are suggested. There is an erroneous principle that runs through them all—namely, the central opening at the point of the tube. Consider the syringe in use and the tube in position. Let two ounces of water be injected. Then there is round the cervix a cavity containing fluid in which the nozzle is lying. No fluid runs out, for the vaginal opening remains closed round the tube and probably more than four or five ounces will be injected before any fluid begins to flow. At this point, therefore, there is fluid in the closed cavity under some considerable pressure. The pressure acts equally in all directions, the force at the opening of the cervix being equal to that at the opening of the syringe. It can easily be seen what will be the result of vigorous syringing, especially if the two openings are in a line with each other, as must at least sometimes happen. The object of vaginal douching is in general to wash out the vagina. There can hardly be a doubt that in some cases gonorrhœal peritonitis is brought about by awkward syringing, the infection being thus conveyed directly into the uterus. When a woman has any increased discharge she goes straight away and buys a syringe, and when the mischief is done she comes into the consulting-room. For further possibilities of harm see THE LANCET of Oct. 3rd, p. 979. The ideal syringe-tube would be closed at the apex, there being one or two openings on the side close to the extremity, rounded or oval, and big enough to let the head of a hare-lip pin or bonnet pin through. The material would be toughened glass or clear celluloid, shorter by one or two inches than the usual gum-elastic tube and wider, so as to lessen the pressure within. Perhaps one might ask for another name than the present cumbrous and indelicate term. Something like "Re-lave," meaning to wash back, would be at once explicit and sufficiently euphonious.

I am, Sirs, yours faithfully,

Earl's Court-road, W., Nov. 23rd, 1903. GEORGE CRICHTON, M.D. Edin.

ETON COLLEGE BEAGLES.

A MEMORIAL has been addressed through the Humanitarian League to the chairman of the governing body of Eton College. It is signed by the headmaster of the Handsworth Grammar School, by the honorary secretary of the Martock District of the South Somersetshire Branch of the Royal Society for the Prevention of Cruelty to Animals, and by some other better known gentlemen. It has also, we understand, been signed by Lady Florence Dixie, Mr. Keir Hardie, Dr. Gordon Stables, and Mr. Hopwood, the Recorder of Liverpool. The Humanitarian League, "without entering on the general question of the morality of field sports as practised by adults," desires the governing body of the college to do away with the Eton beagles. The Provost has replied, stating that the governing body were not going to interfere with the headmaster's discretion. The Rev. J. Stratton, secretary to the Sports Committee of the Humanitarian League, thereupon wrote to Dr. Warre who with admirable common sense replied that he was not prepared to interfere with the liberty of the boys in the matter and that he had no evidence to show that in any single instance the results were demoralising. We do not, for our own part, mind in the least whether Eton College hunts the hare or does not hunt the hare, but we are willing to believe that if the authorities of the college decide that the exercise is good for the lads they will take care that it is obtained without any brutality to animals. We object to the licence that bodies like the Humanitarian League allow themselves. The memorial is accompanied by a fly-sheet saying that "the Eton boys seek amusement in the infliction of pain on animals." The league has no business whatever to assume that it is the pain of the hare that amuses the boys, and such insinuations are constantly made by antivivisection societies and similar conceited ill-informed bodies.

A SPECTACLE QUACK.

WE have upon many previous occasions referred to the injury inflicted upon patients with defective sight by their being drawn into the net of the "oculist optician." One of this fraternity, whose name is

Mr. J. Hamilton,
Bridge Avenue,
Hammersmith, London,

has recently been travelling in the West of England and has distributed circulars to medical men and presumably to others. Two of these have been forwarded to us, one by a medical man at Sherborne and one by a medical man at Templecombe. In one case Mr. Hamilton called for the circular himself. The circular, we may add, is endorsed, "The forty-seventh annual visit to this town," and proceeds:—

MR. J. HAMILTON respectfully announces to the Nobility, Clergy, and Gentry of this Town and its Vicinity his arrival, and begs to introduce his newly-invented *CRYSTAL SPECTACLES* and *EYE GLASSES* celebrated for their superiority, a trial of which he feels confident must ensure unqualified approbation for the protection they afford to the Eye from the injurious effects of gas, fire, the sun, or variations of the atmosphere.

In his long and widely-extended practice, MR. HAMILTON has met with numerous cases of ruined sight, caused chiefly by the use of unsuitable or defective Spectacles, purchased of ignorant pretenders to optical science, who undertake to assist the sight with Glasses the properties of which they know nothing, and as they have not made the anatomy and physiology of the eye their study, they are not qualified to make that delicate adjustment of the Glasses to the concavity or convexity of the eye, without which clear and easy vision is impossible.

In using MR. HAMILTON'S Newly-Invented Lenses, less magnifying power is required than those generally used, and does not require changing so frequently to a stronger magnifying power.

Single Eye Glasses should in all cases be avoided.

Mr. J. HAMILTON will call personally to-morrow, when he may be consulted on all Diseases of the Eye and Ear.

CAUTION.—*Mr J. Hamilton begs to caution the Nobility and Gentry of this Town against any persons making use of his Name for Trade purposes. He has no connection with any other person of the same Name, neither has he any Son or Nephew travelling.—(Signed) J. HAMILTON.*

MR. J. HAMILTON HAS ALSO A LARGE ASSORTMENT OF OPERA GLASSES.

Mr. Hamilton is kind enough to give "a few testimonials from many hundreds." Most of the "testimonials" are simply names and those names preceded by "Dr." do not appear in the Medical Directory at the places where Mr. Hamilton says that the owners live. There are two testimonials, one dated 1866 and one 1868.

A FREAK OF HEREDITY.

To the Editors of THE LANCET.

SIRS,—Will you allow space in your columns for the following notes and questions? The case to which they relate may be of interest to those who study the phenomena of heredity. My grand-niece has a head of hair unlike any other I have ever seen outside my own family, each hair being twisted up separately and the whole standing out almost straight from the head when let down and combed. The child's mother has similar hair, so has her grandmother; her great-grandmother had not, but she evidently inherited and transmitted the tendency to it, for her brother showed the trait fully. Going back

yet another step in the descent neither father nor mother exhibited the family peculiarity, and therefore it must have come from a progenitor not less than six generations ago.

It will be seen that after missing at least two generations the trait has reappeared in all of the succeeding three and always in the female line. Only one instance is known of its appearance in a male. Will any qualified reader say whether the characteristic described and which is shown to have descended through six generations can at its origin have arisen spontaneously, and if not to what can it be due? If it comes from some crossing with foreign blood in the remote past through how many generations can such a trait continue to reappear?

I am, Sirs, yours faithfully,

Nov. 12th, 1903. X.

THE GRAFTING OF AN EAR.

A GOOD deal of prominence has been given recently to the offer stated to have been made in the United States of America of £1000 for the ear of a human being to be transferred to the head of a wealthy American. The advertisement and the offer contained in it are disgusting and the operation will probably be ineffective as the transferred organ in such cases is likely to die. It is to be observed that the advertisement is coupled with the name of a medical man which in this country would have been excluded from it had he been one desirous of maintaining his good name in his profession. With regard to the earless millionaire, those who sympathise with him in his defect will feel no good-will towards him in his desire to spend his money in procuring the mutilation of a fellow creature oppressed by penury. We should offend the "anti-vivisectionists" by suggesting an experiment with a "dumb animal," but perhaps the transference of the ear of a four-footed beast that on one recorded occasion broke silence would best meet the requirements of the case.

HOW DISEASE MAY BE SPREAD.

AT the meeting of the Atcham rural district council in reference to the one solitary case of scarlet fever reported in the district the medical officer, Mr. M. Gepp, remarked that it was a very interesting case, as showing not necessarily the way in which the infection was caused but the way in which it might have been caused. The patient was a two-year-old child who had been ill and had not been out anywhere to contract the fever. The father, however, was a shoemaker and a pair of boots had been taken to the house for repair by a member of a household some few miles off where there was scarlet fever. The messenger had not contracted the fever and did not go into the house with the boots but within two days after the boots were taken away the case in question developed. The boots were not those of the other patient. Mr. Gepp could not say that they were the cause of the outbreak but they were the only conceivable cause. The case was instructive as showing that scarlet fever could possibly be carried in what might be called a trivial way.

A CHEAP OPEN-AIR SANATORIUM.

To the Editors of THE LANCET.

SIRS,—In reply to a frequently repeated question I would recommend "W. E. F. T." and others to learn the methods of a recognised sanatorium, paying a reasonable fee as a patient. They can then instruct their patients in self-treatment at home, making use of one of the new convertible chalet shelters which are reasonable in price. I believe they are sold by Messrs. Browne and Tilly, a natori m builders, Reading, for about £25. In this way a patient may undergo the open-air cure for a year or two at a minimum cost.

I am, Sirs, yours faithfully,

Nov. 23rd, 1903. ECONOMIST.

THE BRITISH MEDICAL BENEVOLENT FUND.

THE following is a further list of donations received in response to Sir William Broadbent's appeal:—

	£	s.	d.		£	s.	d.
Mr. J. B. Ruddock	5	5	0	Dr. R. Petch	1	1	0
Mr. James Taylor, J.P. ...	5	0	0	"In Mem riam"	1	1	0
Dr. W. Travers	2	2	0	"Anonymous"	1	1	0
Dr. E. Deanesly	1	1	0	Mrs. A. Gray	1	0	0

The treasurer (Dr. S. West, 15, Wimpole street, London, W.) desires to call attention to the offer made by Dr Satcheil of a donation of £10 on condition that a further sum of £80 should be raised in £5 or £10 special donations before the end of the year. This condition is as yet far from having been fulfilled.

THE *MORNING LEADER'S* "MAN IN THE STREET."

WE have never been exactly clear as to the identity of "the man in the street." A recent letter in the *Morning Leader* in a column under that heading helps us a little. Apparently "the man in the street" is the kind of man who ought to be under restraint. Here is an excerpt from this enlightening contribution:—

> Even supposing that the drugs and the dispensing [in "the average doctor's surgery"] are all that could be wished, is it not highly unsatisfactory that the man who mixes up potent drugs should also sign the death certificate?

Our most lenient view of such a passage is that the writer had not only been "mixing up potent drugs" but had been imbibing pretty freely from the mixture. This irresponsible gentleman calmly suggests that medical men in the hurry of busy practice are prone to poison their patients first and to sign their death certificates afterwards!

W. M. K.—We think that it would be inadvisable for an assistant to be on the staff of the hospital, while objections can be urged to the presence on the staff of two or more partners of the same firm. It would, however, be impossible in many districts to make a rule preventing partners from holding simultaneous office as this might mean that the staff of the hospital would be inadequately constituted. The relations of an assistant towards his employer are not those of partners towards each other and the presence of an assistant and his employer on the staff might mean that the latter would always have two votes.

Protection.—Our correspondent will find an article in an early issue of THE LANCET dealing with the salient points arising out of his letter. There can be no hard-and-fast rules to fit all situations as the wealthy and thickly populated town will require, and will be able to pay, a school board medical officer while the country district cannot enjoy this convenience.

M. D.—If our correspondent is absolutely certain that unfair and untrue statements are made about his intentions he would be justified in inserting one such advertisement; but he will do well not to have recourse to advertisement if it can be avoided and it will be imprudent to take the step unless he can prove that the false assertions have been made.

J. T. H.—The advertisement in question has been previously brought to our attention but we think it not worth notice in our columns. It would not be possible for the General Medical Council to sit in judgment upon the matter.

Medico-legal writes: Can any of my colleagues tell me the meaning of a strong fishy smell in the urine and where I can read an explanation of the symptom?

Curious will find all the information that he seeks in the Medical Directory. We do not recommend practitioners.

J. B.—The methods of the author constitute an innovation and not a desirable one.

J. J.—No.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (30th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (5.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

TUESDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (5.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.).

WEDNESDAY (2nd).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.) Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

THURSDAY (3rd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (5.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

FRIDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (5.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.).

SATURDAY (5th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (1st).—PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Dr. L. S. Dudgeon: A Contribution to the Pathology of the Thymus Gland.—Mr. C. S. Wallace: On Enlargement of the Prostate.—Dr. H. A. Lediard: Unusual Tumour of the Skull.—Mr. C. A. Morton: (1) Calcifying Chondro-sarcoma of Breast; (2) An Unusual Form of Obstruction of the Colon.—Mr. Barnard and Mr. Rigby: Pulsating Exophthalmos with Carotid Aneurysms.—Dr. J. H. Drysdale: Racemose Aneurysm of the Brain.

WEDNESDAY (2nd).—OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Mrs. Scharlieb, Dr. F. G. Stevens, Dr. R. Andrews, Dr. V. Bonney, and others. Dr. Stevens: Lantern Demonstration on the Fate of the Ovum and Graafian Follicle in Premenstrual Ages. Paper:—Mr. J. D. Malcolm, Dr. R. H. Bell, and Dr. G. Lockyer: A Case of Hydatidiform Mole with Bilateral Cystic Disease of the Ovaries and Malignant Invasion of the Muscular Wall of the Uterus, the Patient being quite well two years after Removal of the Parts.

THURSDAY (3rd).—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware road, W.).—8.30 P.M. Discussion on the Present Treatment of Enlarged Prostate (opened by Mr. C. W. Mansell Moullin).

NEUROLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Pathological Meeting. Specimens and lantern slides will be shown by Dr. M. Clarke, Dr. Harris, Dr. F. Buzzard, Dr. P. Stewart, Dr. Collier, Dr. Fletcher, and Dr. Batten.

CHILDHOOD SOCIETY (Library of the Sanitary Institute, 72, Margaret-street, W.).—8 P.M. Lecture:—Mr. A. B. Kingsford: Nutrition and Education.

RÖNTGEN SOCIETY (20, Hanover-square, W.).—8.30 P.M. Mr. C. E. S. Phillips: The Production of Photographic Reversal under the Combined Action of Various Radiations.

FRIDAY (4th).—WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich-road, S.E.).—8.30 P.M. Council Meeting 8.45 P.M. Exhibitions and Demonstrations by Mr. J. J. Vesey, Mr. W. Webster, Messrs. Down Bros., Messrs. Parke, Davis, and Co., and the Galen Manufacturing Company. Dr. J. R. Bradford: The Value of Symptoms in Diagnosis (Purvis Oration). Conversazione.

SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—Clinical Evening. Communications by Dr. Clapham and Dr. McCardie.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith, W.).—8.30 P.M. Papers:—Mr. F. G. Lloyd: Appendicitis.—Dr. A. Morison: Boldness in the Treatment of Heart Disease.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (30th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Davis: Treatment of Heart Disease.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. J. M. H. Macleod: Clinique. (Skin.) 5.15 P.M. Prof. A. E. Wright: The Treatment of Tuberculosis by the Therapeutic Use of the New Tuberculin.

TUESDAY (1st).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. R. H. Cole: The Prevention of General Paralysis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Sir W. H. Broadbent: Clinique. (Medical.) 5.15 P.M. Dr. C. T. Williams: Life Insurance.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Mr. Ballance: Surgery of the Nervous System.

GLASGOW OPHTHALMIC INSTITUTION (126, West Regent-street).—8 P.M. Demonstration of Ophthalmoscopic Cases, Stereoscopic and other Photographs, Pathological Specimens and Microscopic Slides. The Treatment of Iritis. (Post-Graduate Course.)

WEDNESDAY (2nd).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Moullin: Fibroid Tumours of the Uterus.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. C. Ryall: Clinique. (Surgical.) 5.15 P.M. Mr. T. Collins: Ulceration of the Cornea.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—3 P.M. Dr. Wethered: The Early Diagnosis of Pulmonary Tuberculosis.

THURSDAY (3rd).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. P. Dunn: Some Ophthalmic Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Dr. E. G. Little: Tuberculous Diseases of the Skin.

SAMARITAN FREE HOSPITAL FOR WOMEN (Marylebone-road, N.W.).—3 P.M. Dr. McCann: The Methods of Examination employed in Gynæcological Diagnosis. (Demonstration of Instruments.)

CHARING CROSS HOSPITAL.—4 P.M. Dr. Hunter: Demonstration of Medical Cases. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Poynton: Some Common Skin Diseases in Childhood.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (7, Fitzroy-square, W.).—5 P.M. Dr. T. D. Lister: The Treatment of Phthisis at Home. (Post-Graduate Course.)

FRIDAY (4th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. S. Taylor: Entozoa.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. W. Dodd: Clinique. (Eye.) 5.15 P.M. Mr. M. Gunn: Optic Neuritis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. A. Turner: Prognosis in Epilepsy.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 26th, 1903.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Nov. 20	30·09	S.W.	...	53	52	33	36	37	Cloudy
,, 21	29·77	W.	0·01	69	56	37	49	52	Cloudy
,, 22	30·17	W.	...	70	54	45	45	47	Fine
,, 23	30·19	S.W.	...	59	55	46	49	51	Overcast
,, 24	30·10	N.	...	57	51	51	49	51	Raining
,, 25	30·23	W.	0·02	63	49	38	38	39	Foggy
,, 26	30·09	S.W.	...	68	43	36	39	42	Cloudy

During the week marked copies of the following newspapers have been received: *Aberdeen Free Press Aberdeen Free Press (Weekly), Boston Independent, Hertfordshire Mercury, Windsor and Eton Express, Standard, South Wales Daily News, Walsall Advertiser, Surrey Advertiser, Coventry Herald, Birmingham Daily Mail, Reading Mercury, Mining Journal, Local Government Chronicle, Scientific American, Liverpool Courier, Westminster Gazette, Pall Mall Gazette, Daily News, Irish Times, Nottingham Guardian, &c.*

Communications, Letters, &c., have been received from—

A.—Dr. P. H. Abercrombie, Lond.; Messrs. Arthur and Co., Lond.; Messrs. Armour and Co., Lond.; Apollinaris Co., Lond.; Messrs. Allen and Hanburys, Lond.; Another Ship's Doctor, Lond.

B.—Mr. G. F. Blake, Dublin; T. B. Browne, Ltd., Lond.; British Electro-Therapeutic Society, Lond., Secretary of; Bridgwater Infirmary, Secretary of; Mr. P. Botham'ey, Lond.; Mr. Anthony A. Bowlby, Lond.; Messrs. P. B. Burgoyne and Co., Lond.; Mr. L. A. Bidwell, Lond.; Mr. Haydn Brown, Eversley; Messrs. J. H. Besty and Son, Lond.; Dr. A. M. Barford, Lond.; British Druggists, Ltd., Lond.; Messrs. Boulton and Paul, Norwich; Mr. C. L. Bedford, Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.; Mr. Ball, Lond.

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G.—Mr. W. C. Gordden, Vienna; Messrs. Grindlay and Co., Lond.; Messrs. R. W. Greeff and Co., Lond.

H.—Dr. H. B. Howard, Boston; Mr. J. Hopkins, Shillelagh; Mr. C. A. Hardman, Reigate; Mr. E. Huxley, Lond.; Mr. W. R. Hall, Lond.

I.—Invalidendank Annoncen Expedition, Berlin.

J.—Mr. J. R. Jack, Lond.; Dr. T. Batter by Johson, Ilford; Mr. W. Jopling Maidenhead; Mr. Arthur R. Jones, Whitby; J. H. L. A.

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O.—Oldham Infirmary, Secretary of; Sir Lambert Ormsby, Dublin.

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R.—Dr. J. B. Rankin, Lond.; Royal Meteorological Society, Lond., Assistant Secretary of; Royal Institution for the Deaf and Dumb Derby, Secretary of; Rochester Surgical Appliance Co., Rochester, U.S.A., Manager of; Royal Surrey County Hospital, Guildford Secretary of; Dr. H. Reynès, Marseilles; Dr. H. H. Rubra Lond., Royal College of Physicians, Lond., Registrar of; Messrs. Reynolds and Branson, Leeds; Dr. R., Ilkeston; Mr. G. J. Roberts, Festiniog; Reuter's Telegram Co., Lond.; Royal Hants County Hospital, Winchester, Secretary of.

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T.—T. H. R.

U.—Mr. J. C. Umney, Lond.

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Letters, each with enclosure, are also acknowledged from—

A.—Professor J. Attfield, Watford; Miss Anderson, Lond.; A. W.; A.; Alpha, York.

B.—Mr. J. Breman, Harwich; Dr. A. R. H. Bland, Lond.; Messrs. J. Beal and Son, Brighton; Dr. R. Browne, Lond.; Mr. R. L. Bealy-Smith, Eastleigh; Mr. S. Buck, Lond.; Dr. G. W. Brown, Hanley; His Excellency the Brazilian Minister, Lond.; Messrs. Broadbent and Co., Huddersfield.

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